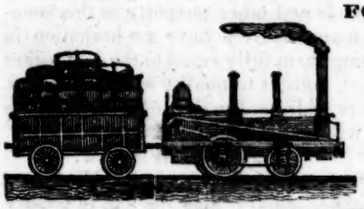
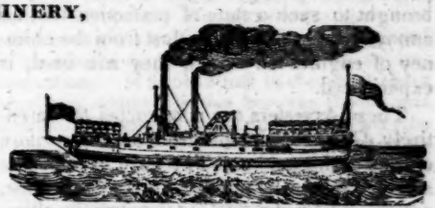
AMERICAN RAILROAD JOURNAL,
AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY, AND MINES.



ESTABLISHED 1831.



PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. I., No. 2.] THURSDAY, JANUARY 9, 1845. [WHOLE No. 445, VOL. XVIII.

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these uudertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

RATES OF ADVERTISING.

One page per annum	$125 00
One column "	50 00
One square "	15 00
One page per month	20 00
One column "	8 00
One square "	2 50
One page, single insertion	8 00
One columnn " "	3 00
One square " "	1 00
Professional notices per annum	5 00

ENGINEERS and MACHINISTS.

STILLMAN, ALLEN & Co. N. Y.
JAS. P. ALLAIRE, N. Y.
H. R. DUNHAM & Co. N. Y.
WEST POINT FOUNDRY, N. Y.
PHŒNIX FOUNDRY, N. Y.
R. HOE & Co. N. Y.
SECOR & Co. N. Y.
J. F. WINSLOW, Albany Iron and Nail Works, Troy, N. Y. (*See Adv.*)
TROY IRON AND NAIL FACTORY, H. Burden Agent. (*See Adv.*)
ANDREW MENEELY, West Troy. (*See Adv.*)
ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. (*See Adv.*)
S. VAIL, Speedwell Iron Works, near Morristown, N. J. (*See Adv.*)
NORRIS, BROTHERS, Philadelphia, Pa.
KITE'S Patent Safety Beam. (*See Adv.*)
FRENCH & BAIRD, Philadelphia, Pa. [*See Adv.*]
BALDWIN & WHITNEY, Philadelphia, Pa.
JOHN F. STARR, Philadelphia, Pa.
MERRICK & TOWNE, do.
NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. [*See Adv.*]
ROSS WINANS, Baltimore, Md.
SOUTH BOSTON IRON COMPANY, South Boston.
HINCKLEY & DRURY, South Boston.
C. C. ALGER, [Stockbridge Iron Works,] Stockbridge, Mass.

IRON MERCHANTS and IMPORTERS.

DAVIS, BROOKS, & Co. N. Y. [*See Adv.*]
A. & G. RALSTON & Co. Philad. Pa. [*See Adv.*]
THOMAS & EDMUND GEORGE, Philadelphia. [*See Adv.*]

NICOLL'S PATENT SAFETY SWITCH FOR RAILroad Turnouts.

This invention, for sometime in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.

G. A. NICOLLS,
Jan. 1, 1845. Reading, Pa.

TO IRON MANUFACTURERS.

The subscribers as Agents of Mr. Geo. Crane of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licences for the manufacture of Iron according to Mr. Crane's principle.

A. & G. RALSTON & Co.
No. 4 South Front street, Philadelphia, Pa.

S. VAIL, Proprietor of the Speedwell Iron Works, near Morristown, N. J. can supply at short notice railroad companies and others, with the following:

Wrought Iron Tyres made from the best iron and of any given diameter, and warranted to be sound in the welding. Railroad companies wishing to order, will be pleased to give the exact inside diameter or circumference to which they wish the tyres made, and they may rely upon being served according to order, and also punctually, as a large quantity in the strait bar is kept constantly on hand. Crank axles for locomotive engines, made from the best Pennsylvania iron. —Straight axles for locomotives for outside connection engines. Frames for engines.—Wrought iron work for steamboats, and shafting of any size. Cotton screws of any length or size. Railroad Jack screws, a late invention, and highly approved. Self-acting pumping apparatus for railroad water stations. He refers to the following gentlemen:

Baldwin, Vail and Hufty, Philadelphia; Wm. Norris, Philadelphia; N. Campfield, Savannah, Ga.; J. and S. Bones, Augusta, Ga; D. F. Guez, New Orleans, La.; Adam Hall, New York; J. P. Allaire, New York; William Parker, Boston, Mass.; George W. Schuyler, New York.

VALUABLE PROPERTY ON THE MILL DAM FOR SALE.—A Lot of Land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and East of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main Brick Building, 120 feet long, by 46 feet wide, two stories high A Machine Shop, 47x43, with large Engine, Face, Screw, and other Lathes, suitable to do any kind of work.

Pattern Shop, 35x32 feet, with Lathes, Work Benches, &c.

Work Shop, 86x35 feet, on the same floor with the pattern shop.

Forge Shop, 118 feet long by 44 feet wide on the ground floor, with two large Water Wheels, each 16 feet long, 9 feet diameter, with all the Gearing, Shafts, Drums, Pulleys, &c., large and small Trip Hammers, Furnaces, Forges, Rolling Mill, with large Balance Wheel and a large Blowing Apparatus for the Foundry.

Foundry, at end of Main Brick Building, 60x45½ feet, two stories high, with a shed part 45½x20 feet, containing a large Air Furnace, Cupalo, Crane and Corn Oven.

Store House—a range of Buildings for Storage, etc., 200 feet long by 20 wide.

Locomotive Shop, adjoining Main Building, fronting on Parker street, 54x25 feet.

Also—A Lot of Land on the Canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler House 50 feet long by 30 feet wide, two stories.

Blacksmith Shop, 49 feet long by 20 feet wide.

For terms, apply to HENRY ANDREWS, 48 State street, or to CURTIS, LEAVENS & CO. 106 State street, Boston, or to A. & G. RALSTON & CO., Philadelphia. jal

MACHINE WORKS OF ROGERS, KETCHUM & GROSvenor, Paterson, N. J.

The Undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.

Locomotive Steam Engines and Tenders; Driving and other Locomotive Wheels, Axles, Springs and Flange Tires; Car Wheels of cast iron, from a variety of patterns, and Chills; Car Wheels of cast iron with wrought Tires; Axles of best American refined iron; Springs; Boxes and Bolts for Cars.

Cotton, Wool and Flax Machinery

of all descriptions and of the most improved Patterns, style and workmanship.

Mill Gearing and Millwright work generally; Hydraulic and other Presses; Press Screws; Callenders; Laithes and Tools of all kinds; Iron and Brass Castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR.
Paterson, N. J. or 60 Wall street, N. Y.

MESSRS. EDITORS:—As your paper is devoted to the benefit of the public in general, I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore Railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large eight wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstance attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan, the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Delaware, Sept. 28, 1840.

☞ The undersigned take pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,
GEORGE CRAIG, Superintendant,
JAMES ELLIOTT, Sup't Motive Power,
W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the N. Jersey Railroad and Transportation Office, No. 1 Hanover st., New York. jal

TO RAILROAD COMPANIES AND MANUFACTURERS OF RAILROAD MACHINERY.—The subscribers have for sale American and English Bar Iron, of all sizes; English Blister, Cast, Shear and Spring Steel; Juniatta Rods; Car Axles, made of double refined iron; Sheet and Boiler Iron, cut to pattern; Tiers for Locomotive Engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article.

The Tires are made by Messrs. Baldwin & Whitney, Locomotive Engine Manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside.

THOMAS & EDMUND GEORGE,
N. E. corner 12th and Market streets, Philadelphia, Pa.
jal

TO THOSE INTERESTED in Railroads. Railroad Directors and Managers are respectfully invited to examine an improved Spark Arrester, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used, is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks, passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust, they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity, to the bottom of this chamber; the smoke and steam passing off at the top of the chimney through a capacious and unobstructed passage, thus arresting the sparks without imparing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits.

E. A. Stevens, pres't Camden and Amboy railroad company; Richard Peters, superintendant Georgia railroad, Augusta, Ga.; G. A. Nicolls, sup't Philadelphia, Reading and Pottsville railroad, Reading, Pa.; W. E. Morris, pres't Philadelphia, Germantown and Norristown railroad company, Philadelphia; E. B. Dudley, pres't W. and R. railroad co., Wilmington, N. C.; Col. James Gadsden, pres't S. C. and C. railroad comp'y, Charleston, S. C.: W. C. Walker, agent Vicksburg and Jackson railroad, Vicksburg, Miss.; R. S. Van Rensselaer, engineer and sup't Hartford and N. Haven railroad; W. R. M'Kee, sup't Lexington and Ohio railroad, Lexington, Ky.; T. L. Smith, sup't N. Jersey railroad trans. co.; J. Elliott sup't motive power Philadelphia and Wilmington railroad, Wilmington, Del.; J. O. Sterns, sup't Elizabethtown and Somerville railroad; R. R. Cuyler, pres't Central railroad co., Savannah, Ga.: J. D. Gray, sup't Macon railroad, Macon, Ga.; J. H. Cleveland, sup't Southern r. road Monroe, Mich.; M. F. Chittenden, sup't M. P. Central railroad, Detroit, Mich.; G. B. Fi k, president Long Island railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin and Whitney, of this city, will be promptly executed.

FRENCH & BAIRD.

N. B. The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

Philadelphia Pa., April 6, 1844.

TO IRON MASTERS—FOR SALE, Mill Sites in the immediate neighborhood of *Bituminous Coal* and *Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than $1 to $1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

W. R. CASEY,
Civil Engineer,
No. 23 Chambers st., N. Y.

SAMUEL NOTT, Civil Engineer, Surveyor and General Agent, Bangor, Me. Railroads, Common Roads, Canal, Factory and Mill Sites, Towns, Farms, Wild Land, etc, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

— REFERENCES. —

Col. James F. Baldwin and Col. J. M. Fessenden, Civil Engineers, Boston; Wm. Parker Esq. Engineer and Superintendent Boston and Worcester railroad.

SPRING STEEL for Locomotives, Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1¼ to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOHN F. WINSLOW, Agent,
Albany Iron and Nail Works, Troy, N. Y.

ANDREW MENEELY'S Manufacturing Establishment, West Troy, Albany County, New York. The subscriber manufactures and keeps constantly on hand Theodolites, Transit instruments, Levels, etc., of the most approved construction. He would invite the attention of surveyors to his Improved Compass, which is almost equal to a Theodolite, inasmuch as angles can be taken without the needle. Angles of elevation can be taken with precisely the same accuracy as horizontal angles. Town clocks, with dead beat escapements, warranted to perform in the best manner, and keep correct time. He still continues to cast Church Bells, warranted not only to stand, but tone such as to give satisfaction and please, and fastens to them cast iron yokes, ready to hang. Also steamboat and factory bells, of all sizes, constantly on hand: and copper and brass castings of every description made to order.

PATENT Hammered Railroad, Ship and Boat Spikes. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of railroad, ship and boat spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscribers at the works, will be promptly executed.

JNO. F. WINSLOW,
Agent Albany Iron and Nail Works.

The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; Jas. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston.

PATENT RAILROAD, SHIP AND Boat Spikes. The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of wrought Spikes and Nails from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent,) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with spikes made at the above named Factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. Y., will be punctually attended to.

HENRY BURDEN, Agent.

Spikes are kept for sale, at Factory prices by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water street, New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

*** Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand for his spikes.

W. R. CASEY, CIVIL ENGINEER, No. 23 Chambers street, New York, will make Surveys, Estimates of Cost and Reports for Railways, Canals, Roads, Docks, Wharves, Dams and Bridges of every description, with Plans and Specifications, and when required, superintend their execution.

He will also make Surveys of Estates, with correct maps and descriptions of the same; and examine and report on the best mode of rendering them productive by draining, mines, quarries, water power, roads, bridges, wharves, etc.

R. F. LIVINGSTON, Civil Engineer Hudson, New York. Refer to W. R. Casey, 23 Chambers st., N. Y.

ILLINOIS.

Not having received the Governor's Message, we give the following extract from the N. Y. Journal of Commerce. We believe there is not a single mile of either canal or railroad in operation, and there appears to be little chance of the Illinois canal being carried through for some time. Indeed, if it be true, that the canal cannot be expected to support itself, and pay 5 or 6 per cent. on the one and a half million required to complete it, for many years to come, we do not see on what grounds its completion can be recommended. We were not a little surprised to find, that gentlemen, well acquainted with the country, and indeed deeply interested in the progress of the canal, considered that an income of $200,000 could not be hoped for within the first few years. The tone of the messages of these western Governors is very peculiar, and is not such as to offer any encouragement to bondholders. Their crude dissertations on morals are not a little singular.

"The companies chartered, at the last session, to complete the Central railroad and the Northern Cross railroad from Springfield to the eastern boundary of the State, have not as yet complied with any of the terms of the several laws by which they were created.

The act also to settle the account of Macalister and Stebbins has not been complied with by them; and it is now pretty certain that they never had, and never will have, the ability to comply with its terms. The bonds which they proposed to return, were not and have not been subject to their control. It will be recollected that these bonds were hypothecated to them, upon which the Fund Commissioner received the sum of two hundred and sixty-one thousand dollars, to pay the semi-annual interest on the State debt, due on the first of July, 1841. These bonds were immediately re-hypothecated by them, to raise the money advanced to the Fund Commissioner; and have ever since remained beyond their control. The money is due to the holders of the bonds in proportion to their advances. They have not, however, seen proper to present them for payment, according to the terms of the above recited act; and many of them have been thrown into the market and sold, from time to time, as other bonds.

The revenues of the State for the year 1844, are estimated, by the Auditor, at the sum of $150,000, no part of which has yet been collected. There is also due, for arrearages of previous years, the sum of $59,304. The probable cost of assessing and collecting what is now due to the State, is estimated at about $18,000; and of the whole sum now due, amounting to $209,304, the sum of $100,000 may be collected and paid in by the first of May next. The revenue will be increased for the years 1845 and 1846, about $5000 each year.

On the 31st October last, there were warrants on the Treasury outstanding to the amount of $22,882; and on the same day there was an unexpended balance in the Treasury of $11,733 66.

The sum now on hand, and that due, and expected to be collected, will be scarcely more than sufficient, by the strictest economy, to pay the current expenses of the State Government, the interest on the school fund, and the expenses of this General Assembly.

As to the extraordinary debt of the State, contracted for the canal and other internal improvements, no interest has been paid on it, which has accrued, since the first of July, 1841, and no provision of law has been made for such payment. The magnitude of this debt, compared with the resources of the State, has been a continual terror to the people. They have lived in expectation of oppressive taxes. The same has been anticipated by all who would otherwise emigrate to the State. The popular vote at the last election shows that our population has been increased but little since 1840; and it is a fact too notorious to be concealed, that nothing but the utter impossibility of selling real estate, prevents the rapid decrease of our numbers. The adjacent territories are filling up with inhabitants at our expense. The high and palmy days have departed, when we doubled our population in a few years; when, if a citizen owned more land than he wanted for cultivation, or if he wanted to leave the country, or remove from one part of the State to another, he could sell his land for cash. What has produced this state of things? Has it been high taxes? No. It has been the fear of them only. Is it because money has been drawn from our pockets, as a tax upon our industry? No. Not one cent has yet been paid by taxation. On the contrary, our taxes, for State purposes, are three times less than they are in the great and flourishing State of Ohio. Nevertheless, Ohio is advancing to greatness with unparallelled rapidity; while we are paralysed with the torpid fear of evil only, when no such evil really exists.

Whatever is done ought to be in conformity with the great principles of natural justice. If a fund shall be established, it ought to be so constituted, as to increase with the future prosperity of the country, and although it might be small at first, a probability ought to appear that, within a reasonable time, it will increase to such an amount as will answer the purpose intended; it ought to be such a measure, as the people will be satisfied with and cheerfully submit to. It will be impossible to raise money enough by taxation to pay the entire interest; still something may be done.

In the year 1827, a portion of the land tax was first given to the counties. This land tax ought to be resumed to the State treasury.

I would recommend that the additional revenues thus derived, and such additional tax as the Legislature in their wisdom will provide for, be formed into a fund, the proceeds and increase of which shall be sacred, and dedicated to the extinction of a portion, however small at first, of the interest on the public debt.

Whatever we do in this way, ought to have the greatest permanency. We ought to make it known to the whole world, that whatever may be done in this way, is all that ever will or can be done. Thus, by showing our willingness to contribute according to our ability, by making that our permanent policy, not to be added to or subtracted from in future; and by thus setting a limit to the fears and imaginations of men, in relation to the huge phantom of expected taxes, we might reasonably calculate to restore ourselves in the estimation of mankind, turn the tide of emigration again into our country, accompanied by wealth and intelligence. Land, again, would become of some value. There would be a demand for it at once, and our condition would be improved in every respect."

We are indebted to our Troy friends for the following descriptions of the *Schenectady and Troy*, and *Troy and Greenbush Railroads:*

SCHENECTADY AND TROY RAILROAD.

The road was completed in November, 1842. Length 20½ miles. Cost, $633,520 00.

The route follows very nearly all the distance the valley of the Mohawk river. The scenery not surpassed by any section of country in the State through which a railroad passes.

The greatest inclination of the grade is 50 feet per mile. The greatest degree of curvature 5° per 100 feet, or 1145 feet radius. This curve is at the western terminus of the road, in the city of Schenectady.

The superstructure is laid upon a prepared road-bed of gravel or slate. The rail is of wrought iron, of the T pattern, and weighs 56 lbs. per yard. No pains were spared in constructing this road in order to make it second to none in the country. Its position is an important one. It forms a link in the great chain of railroad communication between Boston and Buffalo. It connects more immediately with the Utica and Schenectady railroad at its western terminus, and at its eastern with the Troy and Greenbush railroad, now completed.

The last mentioned road is a portion of the New York and Albany railroad; and it is hoped that the whole of that road may without delay be constructed.

TROY AND GREENBUSH RAILROAD.

This road is about six miles in length, running northward along the east bank of the Hudson, and connecting the Boston and Albany road, at the depot at Greenbush, with the Troy and Schenectady road, which runs through the city of Troy to join it. By this road, as the Troy and Schenectady crosses the Hudson by a bridge, is formed a continuous line from Portland to Buffalo, a distance of 675 miles. It is graded for a single track, but the masonry is so constructed as to admit of the additions necessary for a double track, and there is no rock in the way of accomplishing the same end. The soil is clay about two miles, being on the declivity of the hills which form the river bank, and a mile or more of the embankment is protected from the action of the current by a wall; the track is raised just above the level of the highest freshets. The road is level, excepting about a mile and a half, on which the steepest grade is six feet to the mile. There are about four miles of straight line, the remainder being made up of curves of different degrees of curvature, the least radius being sixteen hundred feet. There are six arched culverts of six feet span each, and several smaller, one stone bridge of twenty-five feet span, two wooden bridges, with stone abutments, one of ninety feet span, the other of twenty, both built on Howe's principle. The masonry is of the best description as regards strength, and the whole is laid in Rosendale cement. The superstructure is the same as that of the Boston road, with an improvement in the chairs. The rail is of the T pattern, 56 lbs. to the yard. The chair alluded to is from an English pattern, similar to that used on the Paterson road, and is so constructed as to admit of an oak key on each side of the rail, thereby holding the rails firmly in place, and insuring a good surface; and, by another provision, remedying completely the derangement to which all other tracks are liable from contraction and expansion at different degrees of temperature.

The road was begun about three years since as a part of the New York and Albany road, but after a short time the work was suspended. It is now in progress of completion by an association, under an arrangement with the New York and Albany company. The cost, including cars and machinery, will not vary much from thirty thousand dollars per mile, and of this the superstructure will cost about seven thousand per mile.

The track will be completed about the middle of the present month.

MARYLAND.

The unfortunate condition of the finances of this State, and the extent and importance of the works for which she has incurred her heavy debt, give great interest to the following views and facts:

The law passed at December session, 1842, for the sale of the State's interest in the several internal improvement companies, remains a dead letter upon the statute books. No offer has been made which the Treasurer felt justified in accepting. In the enactment of this law, such violence is done to a preceding solemn engagement of the State, that there was probably no reference at the time to previous legislation on the same subject. By the 64th section of the act of March session, 1841, chap. 23, a deliberate promise was made to keep at the Treasury an accurate account of the revenue paid by the city of Baltimore, Howard district, and the several counties, and to transfer to them respectively, an equivalent amount of the stock of the State in the Chesapeake and Ohio Canal Company, whenever that company is prepared to make a dividend of *six per cent.* to its stockholders. The prudence and propriety of such an engagement may well be doubted; but the sacred obligation of the State to fulfil it, ought not to be questioned. Even in the absence of such an insuperable obstacle to the sale of the public works, the time has not arrived when such a purpose could be consummated, without sacrifices too serious to be encountered.

The last report of the Baltimore and Susquehanna Railroad Company, which will be communicated, shews a gradual augmentation of their trade and transportation. During the last year there has been an increase in the number of passengers transported of 14,162: and in the quantity of produce and merchandise of 58,105,739 pounds. The amount of trade passing over the road during the year, has been greater than at any former period; and exceeds by forty-five per cent. that of the year immediately preceding. The steady increase of the trade on the road between Baltimore and Pittsburgh, may be learned from the fact that the whole amount of transportation in 1839, was 4,105 tons, and some pounds, and during the last year it increased to the amount of 18,615 tons and some pounds. The amount paid into the Treasury during the past year by this company was $20,000. This gradual augmentation of the means of the company, and of the amount of its annual contributions to the Treasury, encourages the hope that the day is not far distant when its contracts with the State will be faithfully complied with, and admonishes against a serious sacrifice of the State's interest in its stock.

The relations to the State of the Susquehanna and Tide Water Canal Company are not those of a stockholder. Governed by a laudable desire to encourage the enterprize of our commercial emporium, the State loaned to that company its bonds, to the amount of one million of dollars. The annual interest thereon, being at the rate of *five per cent.*, and payable in London, amounts to $55,000. This company during the past year, has paid into the Treasury only ten thousand dollars, and stands indebted in the sum of two hundred and two thousand dollars, for interest in arrear. There is reason to believe that the annual receipts at the Treasury, from this company, are far short of its means of payment. The last annual report of the company is not before me. By their report of the year 1843, it appears that their receipts for that year were $65,585,38, and that their entire expenditures for salaries, damages, repairs, incidental expenses, &c., were 25,933,11, leaving a nett profit to the amount of more than $39,000, which the company were under the clearest obligation to pay over to the State of Maryland. As the works of this company are completed and in full operation, and the value of the State's interest therein may be readily ascertained, it is respectfully submitted to the better judgment of the legislature, whether measures ought not to be taken to compel full payment of the annual interest due, and a speedy liquidation of the whole amount of the interest in arrear. The financial condition of the State will not permit her to be generous. She has not the means to be just.

No material change has taken place within the year in the receipts from the Baltimore and Ohio, and Washington Branch railroads, when compared with former years. The dividends on the five hundred thousand dollars of stock held in the Baltimore and Ohio Railroad Company, fall short of the interest payable on the bonds issued for its purchase. But the dividends and capitation tax on the Washington Branch, added to the small dividends on the Main Stem of the road, exceed to a small amount the whole interest payable on the million of dollars in bonds issued by the State to pay for its stock in the two works.

The capitation tax on the Washington Branch, received at the Treasury for the year ending 1st December, 1844, amounts to $41,040,20. The same tax for the three preceding years, averaged annually $40,157,46. This average shews that the receipts are less than they ought to have been, when the peculiar causes operating to increase the travelling during the year, and the natural increase of our population, are taken into consideration. It is supposed that this failure to enlarge the income may be traced to the establishment of several lines of stages, which run daily between Baltimore and Washington city, and convey passengers for a sum less than that which the railroad company is by its charter authorized to charge.

It will be remembered that the attention of the Legislature, at its last session, was invited to the alleged decrease of the State's income from the capitation tax, in consequence of the high charges on the road, in comparison with the terms on which the Norfolk line of steamboats were carrying passengers on the Chesapeake Bay. The General Assembly did not then think proper to interpose by any modifications of the charter of the railroad company. The whole subject is again respectfully submitted to your consideration. During the recess, my attention has been directed to the eighth section of the act of December session, 1832, chap. 175, which gives to the Governor, during the recess of the Legislature, the right to authorize the Board of Directors, having charge of the Washington Branch railroad, to reduce the fare for transporting passengers below the two dollars and fifty cents fixed by the charter of the company. Believing that, under the circumstances, it would have been improper to exercise this discretionary power, the authority was not given to the Board. The charges for transporting passengers should be permanent, and regulated by law, and not regulated by the arbitrary discretion of any individual citizen, holding, for the time being, the office of chief magistrate. If the transportation of travellers from Baltimore to Washington city, is to be confined exclusively to the railroad, for the benefit of the State, and the stockholders of the company, it cannot with propriety be done by such temporary changes in charges, as will compel stage and steamboat companies to withdraw from competition, with a return to high charges after all competitors are expelled. The travelling public are seriously interested in this question, and have a right to expect from the State the establishment permanently of such a rate as is reasonable, and will supersede just cause for a resort to other means of conveyance than those provided by the State, through the medium of the corporations fostered by its patronage, and owing their existence to its laws.

Since June last, no report has been received from the Chesapeake and Ohio Canal Company, furnishing information as to its present condition or future prospects. It is believed, however, that within that period no such material change has taken place in its affairs, as if communicated, would assist the Legislature in deciding finally—and it is most earnestly, but respectfully, urged upon the Senate and House to do so—what disposition shall be made of the very large interest of the State in that corporation. Further postponement and delay on this subject cannot possibly be productive of good to any of the interests to be affected. For more than sixteen years the State has been concerned, with other parties, in the undertaking to make a canal from tide water on the Potomac, to the coal fields and iron ore banks of Alleghany. For five years past the work has made very little progress. During this last period, the interest due to the State, and of which it has received no part, amounts in the aggregate to more than two millions of dollars. The corporation stands honestly indebted to the amount of more than one million of dollars to individuals, many of whom are in a state of extreme want and privation, caused by the unjust withholding of their hard earned wages. I submit whether considerations of public justice and private morality, do not require, at the hands of the representatives of the people, an early and just disposition of these claims.

If it shall appear that neither the credit of the State, nor of the corporation, can be made available, so as to progress at once to the completion of the canal, without ruinous sacrifices to the creditors of the company, would it not be advisable, now, to adopt decided measures to determine clearly the vested interests of Maryland in that company? When that has been done, by a foreclosure of the State's mortgages, the facilities for pledging our interest in the corporation will be so far increased as probably to diminish to a great extent, if not entirely to supersede, the pecuniary sacrifices which have been heretofore considered necessary to ensure the completion of the canal to Cumberland.

It is stated in many of the papers, we know not on what authority, that the Housatonic road is to be re-laid with heavy iron. The papers add that it is much needed, an assertion for which no authority is required. But we fear this is not the worst. The location of very many railroads in the United States is indifferent or bad, and the location of the Housatonic is generally considered to be peculiarly objectionable. The whole work was taken in one contract, the road to be located by the contractor within certain limits of gradients and curves, as we have always understood. Hence the curves and inclinations intended to be the exceptions, become the rule, and to make a first rate railroad without changing the line will be somewhat of a puzzle.

STEAM ON CANALS.

A letter on this subject, signed "Fitch," has been addressed to the Schuylkill canal company, strongly urging the trial of propellers on a proper scale.

"I have no intention to discuss in any form the important question now at issue between you and a rival work. I presume that you are the proper judges of your own position, and if you are not, it is no affair of mine. I am interested in the extension of the use of the steam engine, and I think that in this at least we have a common interest. The invention of the Ericsson propeller has opened a new and wide field for the application of steam.—This instrument has been successfully introduced on various canals, but in few instances of canals as well adapted to its use as the Schuylkill navigation. A large portion of your trade is carried directly from the coal region by the way of the Delaware river, the Delaware and Raritan canal, and the Raritan river, to New York; but it encounters on this route various impediments."

The writer then describes the difficulties and delays of the present system, and his mode of obviating them. He proposes the use of five horse engines, weighing two tons, and boats carrying 68 tons of freight; making in all, with two tons of fuel, 72 tons, and then gives this estimate:

"To determine these expenses, we are to observe that, on the line from Pottsville to New York, there is but 51 miles of Schuylkill canal, about 130 miles of open river, and 42 miles of canal in New Jersey, in all respects equal, for the present object, to an open river. These boats will run on the Schuylkill canal, about two and a half miles per hour, and on theresidue of the line about two miles an hour against tide, and six miles an hour with the tide—or at an average speed of four miles in the river. The trip to New York and back, loading and unloading, will consume seven days. The expenses for a boat running day and night, will be:

Captain's wages,	7 days at $1.00		$7 00
Engineer's wages,	7 "	1.00	7 00
Assistant's wages,	7 "	50	3 50
Two boys' wages,	7 "	30	4 20
Board of 5 hands,	7 "	1.50	7 00
Two tons nut coal,		1.50	3 00
Depreciation of boat, which will cost $5,50, and last six years—assuming 35 weeks for the working year, -			2 62
Depreciation of engine, etc., which will cost $4,50, and last ten years—per trip, - - - - - -			1 26
Interest on cost of boat and engine at 6 per cent. per annum—per trip,			1 72
Repairs and contingencies $80 per annum, and per trip, - - - -			2 30
Cost of a trip of seven days, -			$39 60

which will be the cost of conveying an average load of 65 tons from Pottsville to New York, and returning with the *empty boat*. This is just 61 cents per ton.

The charge this season from Pottsville to New York is - - - -	$2 30
Deduct toll on Schuylkill nav., 36 c., } " " Delaware and Raritan, 30 c., }	66
And there remains a charge for freight and towing, of - - - - -	1 64
By the application of steam you can reduce this to - - - - -	61

or you may charge 75 cents in place of the present charge of $1 64, and obtain an interest of 30 to 40 per cent. on the capital invested in the boats. This calculation, it will be recollected, is based on the supposition that you will have no freights. But your boats will be more convenient for carrying back freights, and will be able to do it cheaper than any other craft now applying between the same points. They can run up the Hudson to Albany and Troy, and touch at any of the other river towns. They can descend the Delaware to Wilmington and Salem, and with slight modifications, brave the Chesapeake, and monopolize for a time, both the coal and the returnf reights of Baltimore."—*Philadelphia Inquirer.*

Omitting tolls, it will be seen that the present charge from Pottsville to New York, a distance of 223 miles, is $1.64 per ton, which is to be 61 cts. by "the application of steam." This is much belowiw anything known in this quarter, either on canals or rivers." We hear that the Delaware and Hudson coal company pay 50 cents per ton for a distance of 100 miles on the Hudson river. The subject of propellers is one, however, of such vast interest, that wee cheerfully aid in giving publicity to anythiug which appears at all likely to lead to any improvement in methods of propelling by means of submerged wheels.

Numerous influential meetings have been held in Portland on the subject of the Montreal railroad. The great difficulty will be in Canada, where the board of works, with the whole power of the government, will use all efforts to defeat it. The balance of their seven million loan is only about two millions, and will not finish the canals commenced. Still this is the last opportunity, for in another year all the money will be spent, and in place of railroads to increase the value of their property they will—like Ohio—enjoy the sweets of taxation. But the attempt should be made promptly and with vigor.

Large Scale.—The new scale, now in the course of construction in Philadelphia, by Messrs. Ellicott & Gibson, for the Mine Hill and Schuylhill Haven railroad, is said to be one of the largest ever made in this country. It is 116 feet in length, and will be capable of weighing 100 tons. Its machinery is of an improved construction, and rests on 17 heavy granite pillars. It will be put up near the scite of the present scale. The increased trade of this road requires increased facilities for weighing the coal passing over it, and we are pleased to learn that the receipts of the company are such as to warrant the increased expenditure.

STEAMERS.—There were built at Pittsburg during the year ending on the 1st of the present month, fifty steamboats, of the aggregate tonnage of 12,067 tons. Three more are in course of construction, and one steamship of 1000 tons is nearly ready for launching.

We give the following extracts from late numbers of the *Mining Journal.*

RAILWAYS IN INDIA.—We have been favored with a copy of correspondence between Mr. R. M. Stephenson and the deputy governor of Bengal, respecting the establishment of railways in that country, from which we are glad to find that every facility will be afforded by the government to promote the great object. Mr. Stephenson (who has been actively engaged collecting information and materials,) we believe is now in England, making the necessary arrangements preparatory to the commencement of operations on his return to India. The first great line to be constructed will be, we are informed, between Calcutta and Mugapore, Benares and Allahabad. We heartily wish the important undertaking the most complete success.

NAPIER'S STEAM PRIMING PREVENTOR.—This contrivance lies in covering the surface of the water in the boiler with one or more tiers of balls, the patentee preferring in practice those made of hollow metal. By this means he expects to check violent ebullition, so as to prevent the water from being carried up in any considerable quantity by the steam, and also that the surfaces of the upper tier of balls shall intercept the minuter particles of water, and allow the steam to be evolved in a comparatively dry state.

IRISH STEAM ENGINES.—In the Mining Journal of the 5th ult., we noticed the successful trial of the engines of the Shannon steamer, which had been manufactured by Messrs. Perry and Co., of the Ringsend iron works; we are extremely glad to find, from a communicarion since received, that the result of her first passage to Belfast has been most satisfactory, thus proving the superiority of the engines by making her a fast boat, and also establishing the fact, that they are able to make engines in Dublin equal to any ever yet made in England or Scotland. Her cylinders are 57 in.; length of stroke, 5 feet; diameter of paddle wheels, 20 feet, 6 in.; and her boilers and furnaces so constructed as to enable the firemen to get up steam in forty minutes! Our informant also adds, that much credit is due to the British and Irish Steam Packet Co.—the owners of the Shannon—for encouraging a preference to native manufacture.

INCREASE IN THE VALUE OF RAILWAY CAPITAL.—The following table shows the amount of capital authorized to be raised by shares in twelve of the principal railways; the amount of increase which has taken place in the value of this capital in October, 1843 and 1844, as compared with 1842; and the premium or discount per cent. at which it was quoted in the share lists for these years:

NAME OF RAILWAY.	Sum to be raised by shares.	1842. Prem.	1842. Dis.	1843. Prem.	1843. Dis.	1844. Prem.	1844. Dis.	Increased value of share capital as compared with 1842. 1843.	Increased value of share capital as compared with 1842. 1844.
Birmingham and Gloucester	£1,187,000				47	5		£143,000	£760,000
Birmingham and Derby	1,161,000		59		50		20	105,000	918,000
Bristol and Exeter	1,500,000		26		11		8	225,000	510,000
Edinburg and Glasgow	1,125,000		6	6		26		135,000	360,000
Grand Junction	2,479,000	72		108		108		893,000	893,00
Gt. North of England	969,000		45		30	25		148,000	427,000
Great Western	4,650,000	19		25		69		279,000	2,325,000
Liverpool and Manchester	1,200,000	75		112		100		448,000	303,000
London and Birmingham	6,875,000	91		118		112		1,857,000	1,444,000
London and Brighton	1,794,000		28		36		6	36,000	395,000
South Western	2,222,000	51		72		81		267,000	666,000
South Eastern	2,996,000		72		15	30		540,000	1,898,000
Total	28,167,000							5,112,000	10,889,00

Thus, in 1843 the value of these twelve lines was upwards of £5,000,000 more than in 1842, and nearly 11,000,000 in 1844.

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at dates of latest balance sheets.	Cost of working, in pounds for six months as stated in latest balance sheets.	Total earnings, in pounds, for six months as stated in latest balance sheets.	Dividend at last meeting. Per share. £	s.	d.	Per cent. per annum. £	s.	d.	Paid on share.	Value of share.
Arboath and Forfar	15	102,000	35,000	138,870	.....	.....	0	12	6	2	10	0	25	27
Birmingham and Gloucester	55	1,187,500	407,336	1,500,806	39,261	53,203	1	5	0	2	10	0	100	100
Brandling Junction	23	161,700	365,470	481,452	.....	.....	.....			4	10	0	50	54
Bristol and Gloucester	37 1-2	400,000	211,000	.....	.....	.....	.....			nihil.			30	36
Chester and Birkenhead	14 1-2	750,000	143,170	518,980	5,856	13,148	0	8	6	1	14	0	50	32
Dublin and Drogheda	31	450,000	150,000	500,869	.....	.....	.....			nihil.			55	72
Dublin and Kingston	6	200,000	152,200	359,000	.....	.....	6	0	0	6	0	0	100	166
Dundee and Arbroath	16 3-4	100,000	49,445	153,416	2,989	6,993	1	5	0	5	0	0	25	29
Durham and Sunderland	18 3-4	169,350	124,055	270,392	9,889	17,702	.....			nihil.			34	29
East County and North and East	86 1-4	4,443,200	1,341,155	3,931,905	47,385	118,726	1	6	6	.....			45	57
Edinburg and Glasgow	46	1,125,000	375,000	1,649,523	29,429	55,866	1	2	6	4	10	0	50	57
Glasgow, Paisley and Ayr	51	937,500	.....	1,066,951	12,446	36,736	1	2	6	4	10	0	50	60
Glasgow Paisley and Greenock	22 1-2	650,000	216,666	787,884	11,572	23,177	0	5	0	2	0	0	25	12
Grand Junction	104	2,478,712	.....	2,453,169	84,309	195,080	5	0	0	10	0	0	100	210
Great North of England	45	969,000	581,017	1,262,518	12,201	36,189	1	12	6	3	5	0	100	119
Great Western	221 3-4	4,650,000	3,679,343	7,272,539	132,235	369,904	3	10	0	7	0	0	75	138
Hartlepool	15 1-2	438,000	155,540	719,205	.....	.....	.....			8	0	0	100	...
Leicester and Swannington	16 1-4	140,000	.....	140,000	2,207	6,317	1	5	0	5	0	0	50	...
Liverpool and Manchester	32	1,209,000	497,750	1,739,835	57,239	117,559	5	0	0	10	0	0	100	203
Llanelly	27	200,000	44,000	221,624	.....	.....	1	0	0	2	0	0	87	...
London and Birmingham	112 1-2	6,874,976	1,928,845	6,393,468	92,823	405,768	.....			10	0	0	100	218
London and Blackwall	3 3-4	804,000	266,000	1,315,640	15,978	23,870	.....			.....			16	6
London and Brighton	56	1,793,800	998,350	2,630,451	29,372	84,880	0	12	0	2	8	0	50	47
London and Croydon	8 1-2	550,000	229,000	761,885	7,583	10,545	0	5	0	2	10	0	14	17
London and Greenwich	3 3-4	759,383	233,300	1,040,930	15,193	28,933	.....			nihil.			13	10
London and South Western	92 3-4	2,222,100	630,100	2,596,291	68,457	150,469	1	12	6	6	10	0	41	73
Manchester and Birmingham	31	2,100,000	690,586	1,923,699	15,397	58,162	1	0	6	5	0	0	40	48
Manchester and Bolton	10	778,100	197,730	773,743	8,585	21,140	2	2	0	4	10	0	93	110
Manchester and Leeds and Hull	81	2,937,500	1,943,932	3,921,593	46,653	156,761	.....			7l. & 10l.			60	88
Midland railway	178 1-4	5,158,900	1,719,630	6,279,056	76,983	281,898	.....			.....			100	96
Newcastle and Carlisle	61	878,240	188,563	1,135,069	26,499	73,947	4	0	0	4	0	0	100	105
Newcastle and Darlington	23	500,000	.....	405,728	.....	.....	.....			nihil.			21	49
Newcastle and North Shields	7	150,000	153,876	309,629	8,943	18,466	.....			2	0	0	50	37
North Union	39	739,201	308,306	1,015,447	9,071	37,794	2	10	0	6	16	8	100	104
Paris and Orleans	82	1,600,000	400,000	1,978,415	.....	.....	0	16	0	8	0	0	20	39
Paris and Rouen	84	1,440,000	.....	.....	31,247	91,171	.....			8	0	0	20	38
Preston and Wyre	19	830,000	179,852	355,161	4,191	7,066	.....			nihil.			50	18
Sheffield and Manchester	19	1,150,000	311.759	951,455	11,895	14,876	.....			nihil.			82	93
South Eastern	88	2,996,000	1,530,277	3,464,172	40,993	81,482	0	10	6	2	2	0	50	39
Taff Vale	30	465,000	154,785	590,006	8,509	18,414	1	0	0	6	5	0	100	55
Ulster	25	519,150	20,000	348,626	5,401	13,856	0	15	0	5	1	8	29	37
Yarmouth and Norwich	20 1-2	187,500	62,500	230,250	.....	.....	.....			nihil.			16	25
York and N. Mid., and Leeds and Selby	28	1,062,500	167,500	676,644	27,132	55,752	2	10	0	10	0	0	50	100

NEW AND PROPOSED RAILWAYS.	Share Capital.
Aberdeen	1,600,000
Barnsley Junction	200,000
Belfast and Ballymena	385,000
Blackburn, & Accrington	400,000
Birk. and Chesh. Junction	1,000,000
Bolt. Wigan and Liverpool	800,000
Caledonian	1,800,000
Cambridge and Lincoln	1,250,000
Chatham and Portsmouth	5,000,000
Chester and Wrexham	120,000
Churnet valley	1,800,000
Direct Northern to York	4,000,000
Dublin and Belfast	950,000
Dundee and Perth	250,000
Edinburg and Northern	800,000
Ely and Bedford	270,000
Glasgow, Dum. & Carlisle	1,300,000
Gt. South. and West. Ext.	1,200,000
Gt. Grimsby and Sheffield	600,000
Harwich & E. coun. Junc.	160,000
Huddersfield & M. rl. & cl.	600,000
Kendal and Windermere	125,000
Leeds and Dewsbury	400,000
Leeds and Thirsk	800,000
Liv. Ormskirk & Preston	600,000
London and Portsmouth	1,750,000
London and York	5,000,000
Lodonderry & Enniskillen	500,000
Lynn and Ely	200,000
Manchester, Bury & Ross	300,000
Manchester and Buxton	250,000
Mullingar and Athlone	.....
Newcastle and Berwick	700,000
Richmond & W. End Jun.	.....
Scottish Central	700,000
Sheffield and Lincolnshire	650,000
Shrewsbury and Gd. Junc.	400,000
Shrew. Wolv. Dudly & B.	900,000
Trent Valley	900,000
West London Extension	64,000
West Yorkshire	1,000,000
Whitehaven & Maryport	100,000
FRENCH RAILWAYS.	
Boulogne and Amiens	1,500,000
Central of France	1,280,000
Lyons and Avignon	2,400,000
Orleans Tours & Bordeaux	2,000,000
Paris and Lyons	2,500,000
Paris and Orleans	1,600,000
Paris and Rouen	1,440,000

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
AngloMexican Mint	10,000	10	10	.....	15 7-8	15 7-8
Anti dry Rot	10,000	.....	18 1-2	.....	2	.....
Australian Trust company	5,700	100	35	.....	34 1-2	.....
General Steam Navigation	20,000	15	14	10	27 1-2	27
Gt. Western Steam Pa	.....	.....	100	.....	25	.....
Metropolitan Wood Pav	15,000	10	6	5	6 5-8	.....
Patent Elastic Pav	10,000	1	1	5	1 3-4	.....
Peninsular and Oriental	11,493	50	50	7	64 3-4	65
Ditto	3,200	50	40	7	.....	.....
Polytechnic Institution	.....	.....	.....	6	.....	.....
Reversionary Int. Soc	5,387	100	100	4 1-2	104	104
R. Mail Steam Packet	15,000	100	60	.....	36 1-2	37
South Western Steam	4,000	25	5	.....	.....	.....
Ship Owners' Towing	3,000	10	7 1-2	10	15	.....
Thames Tunnel	4,000	50	50	.....	.....	.....
University College	1,500	100	100	.....	.....	.....

Canals.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Ashby de la Zouch	1,432	113	av.	4	70	70
Barnsley	720	100	100	14	180	180
Birmingham, 1-16 share	3,000	118 3-4	79	10	150	160
Do. and Liverpool Junct	4,000	160	100	.....	13 1-2	13 1-2
Coventry	500	100	100	20	365	365
Cromford	460	do.	do.	24	250	250
Derby	600	do.	do.	9	105	105
Erewash	231	do.	do.	32	440	440
Forth and Clyde	1,297	400 1-2	40 1-2	4	440	440
Grand Junct	11,600	100	100	7	162	161 1-2
Grand Surrey	1,500	do.	do.	.. ....	20	.....
Gloucester and Berkley	5,000	do.	do.	.....	8	8
Grantham	749	150	150	8	185	185
Lancaster	11,699	47 1-4	47 1-4	3	40	40
Leeds and Liverpool	2,897	100	100	34	640	640
Leicester	545	140	140	9	139	139

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Loughborough	70	142 3-4	142 3-4	70	1140	
Monmouthshire	2,409	100	100	10	160	160
Melton Mowbray	250	100	100	10	117	117
Mersey and Irwell	500	100	100	10		
Macclesfield	3,000	100	100	2 1-2	15	15
Neath	247	100	100	17	365	365
Oxford	1,786	100	100	30	505	
Regents or London	21,418	33 3-4	33 3-4	2 5-8	25	25
Shropshire	500	125	125	6	120	120
Somerset coal	800	150	150	7 1-2	123	123
Stafford and Worcester	700	140	140	25	480	480
Shrewsbury	500	125	125	12	230	230
Stourbridge	300	145	145	14	360	360
Stroudwater	200	150	150	19		
Swansea	533	100	100	15	240	240
Severn & Wye & Rail. Av	3,762	26 1-2	26 1-2	5 1-2	30	30
Trent and Mersey	2,600	50	50	65	495	
Thames and Medway	8,149	19 1-4	19 1-4	.....	10	10
Warwick and Birmingham	,000	100	100	10 1-2	167	
Warwick and Napton	980	100	100	8 1-2	122	

Water Works.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Birmingham	4,800	25	25	3 5-8	28	28
East London	4,433	100	100	8	223	225
Grand Junction	5,500	av.	41 2-3	7 1-4	88	90
New River L. B. Ann	1,500			2 1-2		
Manchester and Salford	6,486	av.	30	8 3-8	57	57
Vauxhall, lt. S. London	1,000		100	5	55	55
West Middlesex	8,294	av.	63 5-8	6 5-8	126	127

Docks.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Commercial Dock	1,065	100	100	3	0	
East and West India		sto.		5 1-4	137	
London	3,238,310	sto.		4 1-2	114 3-4	115
St. Katharine	1,352,752	sto.		5	116	117
Southampton	7,000	50	50			

AMERICAN STATE WORKS AND CANALS, ETC.

		STATE WORKS.	Length in miles.	Cost.	1843. Income.	1843. Expend.	1844. Income.	1844. Expend.
N. Y.	1	Black river canal--(4 years' deficiencies)	35	2,066,285	.....	.....	.....	.....
"	2	Cayuga and Seneca—(14 years' def.)	21	419,830	16,557	10,953	.....	.....
"	3	Champlain canal	64	1,257,664	102,308	.....	.....	.....
"	4	Chemung—(11 years' def.)	23	1,012,685	8,140	14,486	.....	.....
"	5	Chenango—(7 years' def.)	97	3,267,590	16,195	15,957	.....	.....
"	6	Crooked lake—(10 years' def.)	8	263,950	461	3,674	.....	.....
"	7	Erie—enlargement of	363	20,435,406	1,880,316	.....	.....	.....
"	8	Genessee valley—(5 years' def.)	120	4,167,846	.....	.....	.....	.....
"	9	52 miles opened, cost $1,500,000	.....	.....	12,292	13,819	.....	.....
"	10	Oneida lake—(4 years' def.)	6	85,082	225	2,239	.....	.....
"	11	Oswego—(14 years' def.)	38	882,399	29,147	22,742	.....	.....
Pa.	12	Beaver division canal	25	.....	.....	.....	.....	.....
"	13	Delaware canal	60	.....	.....	.....	.....	.....
"	14	French creek	45	.....	.....	.....	.....	.....
"	15	Main line	.....	.....	.....	.....	.....	.....
"	16	Columbia railroad	82	.....	.....	.....	.....	.....
"	17	Susquehanna division canal	39	.....	.....	.....	.....	.....
"	18	Juniata canal	130	.....	.....	.....	.....	.....
"	19	Portage railroad	36	.....	.....	.....	.....	.....
"	20	Western division canal	105	.....	.....	.....	.....	.....
"	21	North branch Susquehanna canal	73	.....	.....	.....	.....	.....
"	22	West branch Susquehanna canal	72	.....	.....	.....	.....	.....
"	23	Year ending 30th Nov.	.....	.....	.....	.....	.....	.....
Ohio	24	Hocking canal	.....	947,670	4,757	.....	4,926	.....
"	25	Miami canal	.....	1,660,742	68,640	38,826	74,904	.....
"	26	Miami extension	.....	2,949,250	8,291	.....	12,053	.....
"	27	Muskingum	.....	1,602,018	23,167	.....	28,241	.....
"	28	Ohio	310	4,600,000	322,754	123,398	338,267	.....
"	29	Wabash	.....	2,955,270	35,922	6,400	49,267	.....
"	30	Walhonding	.....	607,269	838	39,005	1,918	.....
"	31	Western road	.....	255,014	7,254	1,782	5,817	.....
Ind.	32	Sundry works	.....	11,000,000	.....	.....	.....	.....
"	33	Maume canal	.....	.....	.....	.....	.....	.....
Ill.	34	Sundry works	.....	10,000,000	.....	.....	.....	.....
Mich.	35	Central railroad	.....	.....	149,987	75,960	.....	.....
"	36	Southern railroad	68	2,776,297	24,064	7,907	.....	.....

The State Canals are all 4 feet deep, and the locks are 13 to 15 feet wide, and 80 to 90 feet in length.

No interest is allowed on the yearly deficiencies nor are the six millions paid from auction and salt duties included, principal or interest. The Genessee valley and Black river canals require large sums for their completion, the interest on which is much greater than the estimated gross income of these canals when finished. The estimated costs are $2,000,000 and $600,000, and the estimated incomes, from the total expenditures of $5,553,000 and $2,400,000 are $39,000 and $14,000 respectively.

We have not been able to procure the last report from Harrisburg. The total receipts for 1843 were $1,019,401; for 1844 $1,164,326, and the cost about 30 millions.

The receipts for 1844 are as follows:

Canal tolls,	578,404
Railroad tolls,	252,855
Motive power,	319,590
Trucks,	13,477
Total receipts,	$1,164,326

of which $585,922 is from 118 miles of railroad, and $578,404 from 550 miles of canal.

The canals of Ohio are supported by a property tax of 5 1-2 mills on the dollar. There are 853 miles of canal in the State, which yielded in 1843 $471,623, and in 1844 $515,393, the cost. 1st Jan. '43 being $15,577,233. The increase of '44 over '43 is only $43,770, though the year '44 has exhibited a greater increase throughout the country than ever before known.

These 21 millions on sundry works yield no income whatever.

The Central [Mich.] railroad supports itself as well as the Southern road, and furnishes the means for its own extension.

CANALS.	Length in miles.	Cost.	1843. Income. Gross.	1843. Income. Nett.	Div. per cent.	1844. Income. Gross.	1844. Income. Nett.	Div. per cent.	Value of stock.
Blackstone	.....	.....	.....	.....	....	.....	.....	....	.....
Bald Eagle Navigation	25	400,000	.....	.....	....	.....	.....	....	.....
Beaver and Sandy, (part)	.....	1,000,000	.....	.....	....	.....	.....	....	.....
Charleston, (S. C.)	.....	.....	.....	.....	....	.....	.....	....	.....
Chesapeake and Ohio	184	12,370,470	47,637	.....	....	.....	.....	....	.....
Conestota	12	300,000	.....	.....	....	.....	.....	....	.....
Delaware and Chesapeake	13	.....	.....	.....	....	.....	.....	....	.....
Schuylkill	108	3,500,000	279,795	102,221	....	.....	.....	....	.....
Farmington	.....	.....	.....	.....	....	.....	.....	....	.....
James river and Kenhawa	.....	.....	.....	.....	....	.....	.....	....	.....
Middlesex	.....	.....	.....	.....	....	.....	.....	....	.....
Port Deposit	10	200,000	.....	.....	....	.....	.....	....	.....
Delaware and Raritan	43	2,900,000	99,623	53,327	....	.....	.....	....	.....
Southwark	.....	300,000	.....	.....	....	.....	.....	....	.....
Tide Water	45	2,900,000	.....	.....	....	.....	.....	....	.....
Union	80	2,000,000	.....	.....	....	.....	.....	....	.....
Morris	101	1,000,000	.....	.....	....	.....	.....	....	.....
Dismal Swamp	.....	.....	.....	.....	....	.....	.....	....	.....

We may, perhaps, at some future time be enabled to give the particulars of all these canals. The Chesapeake and Ohio canal is not yet complete to the coal mines, hence its trifling income. The Morris has been lately sold for one million, one-fourth of its original cost. The Schuylkill canal stock has fallen from 150 to 50. The profits are applied to paying off debts.

CANADIAN CANALS.	Length in miles.	No. of locks.	Lockage in feet.	Size of locks. Length of chamber.	Size of locks. Width.	Size of locks. Depth on mitre sill.	Width of canal. Bottom.	Width of canal. Surface.	Estimate.	Expended to Sept. 1843.
The Welland canal	.....	.....	.....	feet.	feet.	feet.	feet.	feet.	3,948,572	2,485,572
Main trunk from Port Colborne to Port Dalhousie	28	31	328	150	26 1-2	8 1-2	45	81	.....	.....
Junction branch to Dunville (not added below)	21	1	6	150	26 1-2	8 1-2	35	71	.....	.....
Broad creek branch to Port Maitland (not added below)	1 1-2	1	6	200	45	9	45	85	.....	.....
The St. Lawrence canal	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Galops and Port Cardinal	2	2	7	200	45	9	50	90	.....	.....
Rapid Plat	4	2	11 1-2	200	45	9	50	90	672,498	973
Farren's point	3-4	1	3 1-2	200	45	9	50	90	.....	.....
Cornwall, passing the Long Sault rapids	11 1-2	7	48	200	55	9	100	150	865,372	1,665,663
Beaharnois, do. Coteau, Cedars and Cascades road	11 1-4	9	82 1-2	200	45	9	80	120	1,190,087	275,426
Lachine, do. Lachine rapids	8 1-2	5	44 1-2	200	45	9	80	120	old canal.	400,000
Enlargement of do	.....	.....	.....	.....	.....	.....	.....	.....	1,001,333	64,439
Total from lake Erie to the sea	66	57	525							
Chambly	12	9	74	120	24	6	60	36	200,000	440,000

We have no reports since September 1843, and are not aware that regular statements calculated to give true ideas of cost and income are ever published.

About 3 millions have been expended since Sept. '43. Gross income for '43, $104,306, upon 82 miles of canal costing nearly 5 millions.

COAL COMPANIES.	Length in miles R. rd.	Length in miles Canals.	Cost.	1843. Income. Gross.	1843. Income. Nett.	Div. per cent.	1844. Income. Gross.	1844. Income. Nett.	Div. per cent.	Value of stock.
Delaware and Hudson	16	108	2,800,000	930,203	196,702	10	.....	.....	....	117
Lehigh	20	72	6,000,000	.....	.....	....	.....	.....	....	.....

REMARKS.

AMERICAN RAILROADS.

		RAILROADS.	Length in miles.	Cost.	1843. Income. Gross.	Nett.	Div. per cent.	1844. Income. Gross.	Nett.	Div. per cent.	Value of stock.	REMARKS.
Me.	1	Incl'd. in "Bost. & Me." & "Eastern."	.....	.....	.....	.....	....	.....	.....	....	.....	We have no returns from the Maine
N. H.	2	Concord	.....	.....	.....	.....	....	.....	.....	13	.....	or New Hampshire roads.
Mass.	3	Boston and Maine	109	1,384,050	178,745	68,499	6	.....	.....	....	.....	The annual reports of the Massachu-
"	4	Boston and Lowell	28	1,863,746	277,315	144,000	8	.....	.....	....	.....	setts roads will soon be out. The in-
"	5	Boston and Providence	41	1,900,000	233,388	110,823	6	.....	.....	....	109	crease for '44 is very great; the receipts
"	6	Boston and Worcester	48	2,885,200	404,141	162,000	6	.....	.....	....	.....	of the Western road being about $850,-
"	7	Berkshire	21	250,000	.....	17,500	7	.....	.....	....	.....	000.
"	8	Charlestown branch	.....	250,000	.....	.....	13	.....	.....	....	.....	
"	9	Eastern	105	2,388,631	279,563	140,595	6	.....	.....	....	.....	
"	10	Fitchburg	.....	322,538	.....	.....	....	.....	.....	....	.....	
"	11	Hartford and Springfield	25 1-2	.....	.....	.....	....	.....	.....	....	.....	
"	12	Nashua and Lowell	14 1-2	380,000	84,079	.....	8	.....	.....	....	.....	
"	13	New Bedford and Taunton	20	428,543	50,671	24,000	6	.....	.....	....	.....	
"	14	Norwich and Worcester	59	2,166,566	162,336	24,871	....	.....	.....	3	67	
"	15	Taunton branch	11	250,000	.....	20,000	8	.....	.....	....	.....	
"	16	West Stockbridge	3	.....	.....	.....	....	.....	.....	....	.....	
"	17	Western, (117 miles in Mass.)	150	8,319,520	573,882	284,432	....	.....	.....	....	92	
"	18	Worcester branch	.....	5,500	.....	.....	....	.....	.....	....	.....	
Con.	19	Hartford and New Haven	38	.....	.....	.....	....	.....	.....	....	92	
"	20	Housatonic,	74	1,244,123	.....	.....	....	150,000	.....	....	.....	
"	21	Stonington, (year ending 1st Sept.)	48	2,600,000	113,889	.....	....	154,724	79,845	....	40	
N. Y.	22	Attica and Buffalo	31 1-2	268,275	45,896	7,522	....	.....	.....	....	.....	
"	23	Auburn and Rochester	78	1,727,361	189,693	112,000	....	.....	.....	....	110	Ithaca and Oswego and Catskill and
"	24	Auburn and Syracuse	26	743,931	86,291	27,334	....	.....	.....	....	.....	Canajoharie roads were sold by the state.
"	25	Buffalo and Niagara	.....	.....	.....	.....	....	.....	.....	....	.....	The former does little, the latter nothing.
"	26	Erie, (446 miles,)	.....	5,000,000	.....	.....	....	.....	.....	....	28	
"	27	Erie, opened	53	.....	.....	48,000	....	.....	.....	....	.....	
"	28	Harlem	26	2,200,000	.....	.....	....	.....	.....	....	.....	
"	29	Hudson and Berkshire	.....	.....	.....	.....	....	.....	.....	....	.....	
"	30	Long Island	95	1,500,000	.....	.....	....	.....	.....	....	77	
"	31	Mohawk	16 3-4	1,030,949	69,948	58,780	....	.....	.....	....	.....	
"	32	Tonnawanda	43	600,000	76,227	.....	....	.....	.....	....	.....	
"	33	Troy and Greenbush	6	180,000	.....	.....	....	.....	.....	....	.....	Part of the New York and Albany.
"	34	Troy and Saratoga	25	475,865	44,325	21,000	....	.....	.....	....	.....	
"	35	Troy and Schenectady	20 1-2	633,520	28,043	32,621	....	.....	.....	....	.....	
"	36	Schenectady and Saratoga	22	300,000	42,242	3,000	1	.....	.....	....	.....	
"	37	Utica and Schenectady	78	2,124,013	277,164	180,000	9	.....	.....	....	131	
"	38	Utica and Syracuse	53	1,080,219	163,701	72,000	....	.....	.....	....	119	
N. J.	39	Camden and Amboy	92	3,200,000	682,832	383,880	....	.....	.....	....	.....	
"	40	Elizabethtown and Somerville	26	500,000	.....	.....	....	.....	.....	....	.....	
"	41	Morris and Essex	.....	.....	.....	.....	....	.....	.....	....	.....	
"	42	New Jersey	32	2,600,000	.....	.....	....	.....	.....	....	.....	
"	43	Paterson	16	300,000	.....	.....	....	.....	.....	....	80	
Pa.	44	Beaver Meadow	26	1,000,000	.....	.....	....	.....	.....	....	.....	
"	45	Cumberland valley	46	1,250,000	.....	.....	....	.....	.....	....	.....	
"	46	Franklin	10 1-2	.....	.....	.....	....	.....	.....	....	.....	
"	47	Harrisburg and Lancaster	* 36	860,000	.....	.....	....	.....	.....	....	.....	
"	48	Hazleton branch	* 10	120,000	.....	.....	....	.....	.....	....	.....	The costs of those roads marked *
"	49	Little Schuylkill	29	900,000	.....	.....	....	.....	.....	....	.....	were taken from de Gerstner's report,
"	50	Lykens valley	16 1-2	.....	.....	.....	....	.....	.....	....	.....	published in the Journal in 1840.
"	51	Mauch Chunk	* 9	100,000	.....	.....	....	.....	.....	....	.....	
"	52	Minehill and Schuylkill Haven	* 18	315,000	.....	.....	12	.....	.....	....	.....	
"	53	Norristown	20	800,000	.....	.....	....	.....	.....	....	.....	
"	54	Philadelphia and Trenton	* 30	400,000	.....	.....	....	.....	.....	....	.....	
"	55	Pottsville and Danville	29 1-2	1,500,000	.....	.....	....	.....	.....	....	.....	
"	56	Reading	94	9,000,000	.....	.....	....	.....	.....	....	22	
"	57	Schuylkill valley	* 10	1,000,000	.....	.....	....	.....	.....	....	.....	
"	58	Williamsport and Elmira	25	400,000	20,000	.....	....	.....	.....	....	.....	
"	59	Philadelphia and Baltimore	93	4,400,000	.....	.....	....	.....	.....	....	.....	
Del.	60	Frenchtown	16	600,000	.....	.....	....	.....	.....	....	.....	
Md.	61	Baltimore and Ohio, (1st Oct.)	188	7,623,600	575,235	279,402	....	658,620	346,946	....	50	
"	62	Baltimore and Susquehanna	58	3,000,000	.....	.....	....	.....	.....	....	5	
"	63	Baltimore and Washington	38	1,800,000	177,227	71,691	....	212,129	104,529	....	84	
Va.	64	Greensville and Roanoke	* 17 1-2	260,000	.....	.....	....	.....	.....	....	.....	
"	65	Petersburg and Roanoke	* 60	766,000	.....	.....	....	.....	.....	....	.....	
"	66	Portsmouth and Roanoke	* 78 1-2	850,000	.....	.....	....	.....	.....	....	.....	
"	67	Richmond and Fredericksburg	* 61 1-2	1,200,000	.....	.....	....	.....	.....	....	.....	
"	68	Richmond and Petersburg	* 22 1-2	700,000	.....	.....	....	.....	.....	....	.....	
"	69	Winchester and Potomac	* 32	500,000	.....	.....	....	.....	.....	....	.....	
N. C.	70	Raleigh and Gaston	* 84 1-2	1,360,000	.....	.....	....	.....	.....	....	.....	
"	71	Wilmington and Raleigh	* 161	1,800,000	.....	.....	....	.....	.....	....	.....	
S. C.	72	Charleston and Hamburg	* 136	2,400,000	.....	.....	....	.....	.....	8	.....	
"	73	Louisville and Cincinnati	* 66	800,000	.....	.....	....	.....	.....	....	.....	
Ga.	74	Central	190	2,581,723	227,532	93,190	....	.....	.....	....	.....	
"	75	Georgia	147 1-2	2,650,000	248,026	158,207	....	248,096	147,523	....	.....	
Ala.	76	Tuscumbia	46	.....	.....	.....	....	.....	.....	....	.....	
Can.	77	Champlain and St. Lawrence	15	212,000	.....	12,000	....	58,000	24,000	....	110	
Ky.	78	Lexington and Ohio	40	500,000	.....	.....	....	.....	.....	....	.....	
Ohio	79	Little Miami	40	450,000	.....	.....	....	.....	.....	....	.....	
"	80	Mad river	40	400,000	.....	.....	....	.....	.....	....	.....	
"	81	Monroeville and Sandusky	.....	.....	.....	.....	....	.....	.....	....	.....	
Mich.	82	Detroit and Pontiac	25	.....	.....	.....	....	.....	.....	....	.....	
"	83	Erie and Kalamazoo	33	.....	.....	.....	....	.....	.....	....	.....	
Ind.	84	Madison and Indianapolis	56	152,000	.....	.....	....	.....	.....	....	.....	Purchased from the state.

SALES OF RAILROAD & CANAL SHARES IN BOSTON, NEW YORK, PHILADELPHIA & BALTIMORE.

NAME OF COMPANY.	Monday.		Tuesday.		Wednesd.		Thursday.		Friday.		Saturday.	
	Sh'rs.	Price.	Sh'rs.	Price.	Sh'rs.	Price.	Sh'rs.	Price.	Sh'rs.	Price.	Sh'rs.	Price.
Boston.												
Old Colony	.....	....	.....	....	35	100 1-2	.....	....	.....	....	.....	....
Norwich and Worcester	.....	....	.....	....	.....	....	50	66 1-4	.....	....	25	66 1-4
Western	.....	....	.....	....	23	91 5-8	.....	....	12	92	20	92 1-2
Long Island	.....	....	.....	....	.....	....	240	78 1-2	150	75 1-2	50	74 1-2
Eastern	6	116	....	....	5	112	....	....	.....	....	.....	....
Portland and Saco	.....	....	4	99 3-4	10	99 7-8	.....	....	.....	....	.....	....
Boston and Worcester	31	118 1-2	.....	....	.....	....	.....	....	50	120 1-2	.....	....
Lowell	.....	....	.....	....	1	121	.....	....	.....	....	22	119 1-4
Reading	.....	....	.....	....	.....	....	25	21 5-8	.....	....	.....	....
Boston and Maine	1	107	5	107 1-2	.....	....	37	107 1-2	21	107 3-4	.....	....
Fitchburg	.....	....	.....	....	26	109 1-4	.....	....	.....	....	.....	....
Concord	.....	....	.....	....	50	129	.....	....	.....	....	.....	....
Taunton branch	.....	....	.....	....	5	118	.....	....	.....	....	.....	....
Nashua and Lowell	.....	....	.....	....	75	120	.....	....	.....	....	.....	....
Auburn and Rochester	.....	....	.....	....	100	107 1-2	.....	....	.....	....	.....	....
Boston and Providence	.....	....	.....	....	.....	....	4	108	.....	....	.....	....
New-York.												
Erie	175	28	120	28	.....	....	50	28 1-4	493	28 1-4	50	28 1-4
Harlem	.....	....	.....	....	.....	....	100	64 3-4	.....	....	50	65
Long Island	.....	....	700	75 1-4	.....	....	350	75 3-4	975	75 1-2	925	74 1-4
Stonington	610	39 1-2	500	39 1-8		....	75	39 1-2	100	38 1-4	150	38 1-2
Paterson	.....	....	.....	....		....	30	80 1-4	280	81	.....	....
Hudson and Delaware	.....	....	.....	....		....	.....	....	.....	....	.....	....
Camden and Amboy	.....	....	.....	....	Holiday.	....	.....	....	.....	....	.....	....
New Jersey	20	90	.....	....		....	.....	....	34	93 1-2	.....	....
Mohawk	.....	....	50	59		....	95	59 3-4	80	60 1-4	75	59 3-4
Reading	100	43 3-4	50	43 1-2		....	450	43 3-4	.....	....	.....	....
Morris canal	150	30 1-2	450	29	.....	....	325	29 1-4	375	28 1-2	505	28 1-2
Reading bonds, 6's	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....
Norwich and Worcester	425	66	350	66 1-2	.....	....	525	67 1-2	325	67	177	67
Philadelphia.												
Reading	.....	....	.....	....	.....	....	.....	....	25	21 7-8	.....	....
Reading bonds, 6's	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....
Wilmington	50	21 7-8	700	21 5-8	.....	....	225	21 5-8	202	21 5-8	900	21 1-2
Wilmington bonds, 6's	.....	....	.....	....	.....	....	.....	....	1,000	80	.....	....
Lehigh mortgage	.....	....	1,450	66 1-2	.....	....	.....	....	347	66 1-2	.....	....
Lehigh 6's	.....	....	1,000	36	.....	....	.....	....	600	36	3,160	35 1-2
Chesapeake and Del. 6's	.....	....	1,000	66 1-4	.....	....	.....	....	.....	....	.....	....
Schuylkill Nav.	.....	....	.....	....	.....	....	24	28 1-2	.....	....	22	30
Lehigh Nav.	.....	....	.....	....	.....	....	.....	....	10	10 1-2	.....	....
Baltimore.												
Baltimore and Ohio	.....	....	10	49 1-2	10	49	.....	....	.....	....	.....	....
Baltimore and Ohio bonds	160	102	.....	....	.....	....	.....	....	.....	....	.....	....
Baltimore & Washington	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....
Baltimore & Susquehanna	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....
Philadelphia & Baltimore	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....

Notes to sales of Stocks.

The prices given are the average of each day. When there is any sudden rise or fall in one day it will be alluded to in a note. When the sale of bonds is noticed, the figures in the column headed "Shares" give the amount sold in dollars.

The prices at which shares are sold do not alwaws give the true value of the stock. No considerable quantity of the stock of the dividend paying works of Massachusetts or New York could be purchased without raising the price so high as to take away all inducement to invest. The stocks which do not pay dividends would be reduced 10 or 20 per cent., or even more, were any large amount offered at once; and in some cases they would be altogether unsaleable.

PRINCIPAL CONTENTS.

State works of Illinois....19
Troy railroads....19
Public works of Maryland....20
Steam on canals....21
Portland and Montreal railroad....21
Increase and value of railway capital....21
Cheap postage and railroads....26
German railroads....27
New locomotive....28
Miscellaneous notices....29
Explosion of "Richmond" locomotive....30
Schuylkill navigation....31

AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N.Y.

Thursday, January 9, 1845.

In our last we gave such extracts from the messages of the Governors of Ohio and Indiana as would enable our readers to judge of the condition of the public works of those States. The messages of the Governors of Maryland, Pennsylvania, New York and Michigan will claim our immediate attention. These States, and Illinois—in all seven—are the States which have incurred large debts for public works; hence the propriety of giving a pretty full view of their financial condition in a Journal devoted to the cause of internal improvements.

Mr. Ryan, who was sent out by the State of Illinois to London, has ascribed his failure to procure the **$1,600,000** to the representations made by the Boston committee to the English capitalists interested in the completion of the Illinois canal, and from whom the State expected to receive the above loan, or who were to finish the canal themselves on certain terms. Mr. Ryan now says that further legislation is necessary; the Boston committee said so before, and the English capitalists, we need scarcely say, followed their advice. Still Mr. R. is dissatisfied, and only withholds his reply in order not to, in any way, interfere with the measures now before the legislature to aid the construction of the canal. The whole difficulty arises from the very different codes of financial morals in use among politicians and the higher order of mercantile men in Boston. We can assure our western neighbors that the opinions of half a dozen eminent Boston merchants—if decidedly unfavorable—will be quite sufficient to deter foreign capltalists from investing in the securities of the western States, be the advantages offered ever so great. The only result which can follow will be to sink the faith of the now paying States to a still lower depth. The entire power of their governors and legislatures will be shattered in the encounter with a single individual of standing who cares not a straw for public opinion, when at varience with his own sense of honor. With the general run of politicians it may be sufficient to say that the loan failed on account of the representations of the Boston committee, and nothing further is required to prove their guilt; but it may be well for Illinois and other commissioners to learn, that there *is* a class of very influential persons here who would inquire as to the *accuracy* of the representations of the Boston committee, and then give the very same advice to the London bondholder as to their nearest friend here.

WELLAND CANAL TRADE.

A meeting has been called in Rochester to discuss the propriety of petitioning the State to charge discriminating tolls on western produce, so as to force that portion of the trade coming to the Hudson, via the Welland canal and Oswego, to enter the Erie canal at Buffalo and pay tolls over its entire length. The excitement appears to have been caused by the great increase of tolls at Oswego; as if it were of the slightest moment whether the State derived revenue from the business of that port or of Buffalo. The tolls have immensely increased, and that is all the people care about. The papers are all publishing statements of the receipts of the Welland canal, in which—for some cause or other—the receipts of the years **1842** and **1843** are omitted. But even since **1841**, the increase is only **25** per cent.; whereas, on the Erie canal it is **25** per cent. since **1843**, and about **70** per cent. on the Oswego canal.

This very singular movement of the Rochester people is nominally caused by the small increase in the tolls of the Welland canal—**25** per cent. in four years—but is in reality owing to the sudden increase of **70** per cent. in the tolls of Oswego in a single year. The pampered canal counties view the trade of the west as their's by right; the grand object of settling the western States is to increase the tolls of the Erie canal: the people exist for the Erie canal, not the canal for the people. This most degrading idea pervades the legislation of New York, and is—unconciously perhaps—an axiom with nearly all her public men. But we have not space to pursue this subject at present. The emancipation of of the New York farmer is, we hope, at hand.

NEW-YORK AND ERIE RAILROAD.

In examining the merits of any undertaking, the first point to be determined is—the main object of the work in question. The late Board considered that "remunerating dividends" could only be expected after the completion of the road to the lake. The present Board, who had merely retired for a year, for reasons which we shall explain in a future number, had carried out this principle to its fullest extent in commencing the work in a variety of places, between the Hudson and Lake Erie, so that no part should be productive until the whole was completed. Besides this, it is uniformly advocated in the public prints as a new route to the West. Both Boards highly value the way business, but the great object of the road is the through-travel. We stated in our Dec. No. that "we take a different view of the work, from either the present or the late Board." It is in nothing less than the main object of the work that we differ. We consider that "remunerating dividends" must be derived from the country through which the road passes. These dividends will be increased by such portions of the through-travel as the road may draw to itself—perhaps materially increased; but still, this must be a merely secondary consideration. It is to this grand fundamental error that we attribute the failure of all the innumerable efforts made during the last six years.

Viewed as a thoroughfare to the West, the Erie railroad must compete with the Albany and Buffalo railroads and the Hudson river. We will briefly examine its claims to superiority in distance, speed and economy. As regards the length of the routes, it is impossible to speak with precision at this time: but, on the most favorable supposition, the Erie will at least equal the northern route to the lake. Dunkirk, the western terminus of the Erie railroad, is, however, 40 miles southwest of Buffalo, so that there would be a saving of about three hours in time—on the supposition that the speed would be equal on the two routes. The Erie road relies on its being in the hands of a single company, and on its more heavy rail; but as yet the northern route fully equals it in speed, and altogether surpasses it in accommodations, though built at half the cost; as yet they are both inferior in speed to the steamboats of the Hudson. The northern route is very far superior in grades and curves, and, with the heavy rail, would admit of greater velocity than its southern rival. They are already relaying the northern line, and we may safely assume a good track to Buffalo by the time the southern line reaches Dunkirk. A rival route will make the northern as one company, and the distance from this city to Buffalo, via Albany, will be performed about as quickly as to Dunkirk, via Piermont. But this is a very limited view of the subject. The opening of the Erie railroad would at once lead to the construction of a line hence to Albany; for the vast interests of the country, and the railroads from Albany to Buffalo, would be at once enlisted in its favor. With a continuous railroad to Buffalo, the northern line could with ease reach Dunkirk in time to take on board passengers who started simultaneously from New-York, via the Erie railroad. As regards cost, the steamboats running to Albany for $1,50, and the railways thence to Buffalo, having a way-business yielding "remunerating" dividends, would be able to carry as cheaply as the Erie road, relying mainly on the through-travel. Then the greater number and choice of boats at Buffalo, the greater ease (to some,) of a night on the Hudson than in a car, and the attraction of the Falls, would not be without influence, supposing other things equal. Lastly, there are the periods of opening and closing; for, as both lines terminate on Lake Erie, and as that Lake is closed about four months of each year, neither offers an uninterrupted communication with the West, an advantage many suppose the Erie railroad to possess. Now, as the storms of winter drive vessels from the Lake somewhat earlier than the ice stops the navigation to Albany, this question is reduced to a determination of the superiority of Dunkirk over Buffalo in the time of opening in the spring. The former port was fixed on as the western terminus of the Erie railroad at least 8 years ago, and it is very singular that an exact statement of the times of its opening has not been made public. In the Report of 1841, it is said of the harbor of Dunkirk, "it is open earlier, and occasionally some weeks earlier, in the spring, and later in the autumn, than that of Buffalo."

The relative merits of the harbors of Buffalo and Dunkirk, must be known to the company, as the opening of the former is regularly published.

The last report states the difference at about a week. These things cannot be too fully and candidly stated. We recollect a Buffalo paper making itself very merry at the expense of Dunkirk, because a steamer made a trip from the former port to the west and returned before the harbor of Dunkirk was open. It is important that this point should be cleared up, and the superiority of Dunkirk fairly established, or the claim abandoned.

The people of the southern tier view the road as destined to accommodate them, and consider the through-travel as nothing, compared with their claims; other parts of the State will be at least also indifferent to making a present of three millions of dollars to a work whose main object is to aid the trade and travel of other States, when such large portions of our own are in want of better communications. In short, this regarding the Erie railroad mainly as a thoroughfare is as impolitic, as it is, in our opinion, incorrect. It has done much toward bringing about the present apathy in the southern counties, where repeated disappointments have produced a feeling of despair of success, unless conducted on entirely different principles. The only real claim this work has on the favor of the Legislature is, that it is a New-York work. What do the people of this State care about a railroad which may by possibility shorten the trip from the seaboard to Ohio and Michigan by one or two hours?

The Board sink the work to the level of a mere competing line, we regard it as having its main resources in the country through which it passes; as observed in our Dec. No. we place its claims on higher ground—we might say the highest. There is another difficulty in the way when it is necessary to prepare the means for the entire work. We allude to the doubts as to the confidence to be placed in the estimates. Now, if the road yield remunerating dividends as it proceeds, the total cost is not important; there is no necessity for locations any great distance beyond the part in operation: and the nature of the ground and the wants and capabilities of the succeeding portion of country become intimately known, with little expense, so that the best location may be chosen, both as regards facility of construction and amount of revenue, with certainty and economy.

In another number, we will briefly trace what has been done, regarding the western trade and travel as the grand object of the work; and what might have been done, had wiser counsels prevailed.

[For the American Railroad Journal.]

PENNY POSTAGE AND RAILROADS.

In your December number, there is a very friendly communication from the Hon. F. O. J. Smith, of Maine, in which that gentleman makes some pertinent remarks on the importance of a Journal devoted to the cause of American Railroads. In Hunt's Merchants' Maga-

zine for the same month, there is also a paper from the same pen, on the—to the public—all important subject of cheap, or, rather, reasonable postage. The object of these few lines is to point out a singular error; the more singular, as a glance at the November number of your Journal would have given Mr. Smith correct information as to the sums paid on English railroads for mail service. But, perhaps, an official document was viewed as carrying more weight than the carefully collected information of a Railway Journal was entitled to. Mr. S. quotes Rep. No. 843, U. S. H. of R. 1844:

"The highest rate of railroad compensation, in Great Britain, is only $107 50 per mile annually, and the average rate but $90. In the United States, more than $300 are paid in many instances, and the average cost of railroad service exceeds $143 a mile."

The London and Birmingham railway, 112 miles long, receives £14,700 per annum for mail service, or $600 per mile per annum. This is nearly six times as much as given in by the Postmaster-General, and is about as near the mark as that unhappy personage generally comes in matters connected with his office.

The error may have arisen from confounding the modes of estimating. Here $300 per mile means $300 per mile of road per annum, without reference to the number of miles carried; there the price per mile may refer to the actual number of miles per day over which the mail is transported—or most likely of all, pounds sterling have been taken for dollars,on the equalizing principle which the Post Office department values so highly.

The United States roads, therefore, notwithstanding their comparatively small income, only receive half as much as the English railways, which, with their hourly trains, are enabled to give the department every facility. Most fortunately, Mr. Smith observes that steamboats are as extortionate as railroads on the P. M. G.'s *hypothesis;* most fortunately, because there is no possibility of calling a steamboat a monopoly, the great war-cry of the enemies of railways.

Great ignorance prevails as to the actual cost to a company in running extra trains. The total cost per train per mile is about 55 cts. on an average, carrying say 200 passengers in four large cars. Now, the cost of the cars, including repairs, oil, etc. will not exceed from 15 to 20 cts. per mile: so that the actual cost to the company is not less than 35 cts. per mile for the locomotive alone, and if the speed be greatly increased, the wear and tear will be greater than with the entire train at the ordinary velocity; in the former case, the repairs of road and engine will exceed the repairs of road, engine and cars, on the latter supposition. An extra train will, therefore, cost 70 cts. per mile per day, or (365 × 70) $255 50 cts. per mile per annum. When the profits of a railway do not at least equal half the receipts, the shareholders are apt to suffer. But the mere cost is not the only difficulty. Where single tracks are more frequent than double tracks, additional trains are attended with inconveniences, of which the public, and, *à fortiori*, the authorities at Washington, know very little. An allowance of $300 per mile on the great routes in the United States is anything but unreasonable: and if extra trains are required, at least double that sum per mile should be allowed. In many cases, it will be almost impossible to run extra trains on single tracks, on account of their interference with the most important business of the road; at least, at any price which the department could reasonably entertain.

Should the Post Office department be disposed to make such reductions as the public have a right to expect, they will undoubtedly be met half way by the railroad companies; but as long as Government charges as much for an ounce as some companies charge for a barrel of flour, it does not become the Post-Master-General to talk of extortion. The idea that the populous districts are to pay exorbitant rates of postage, in order to support mails where they carry few letters, and where they are consequently little wanted, is carrying out the principle that all men are born equal, a little too far. The next step will be to equalize the transportation of produce and merchandize all over the country, which is just about as reasonable. Let the department act as the department of the people, and not of the politicians, and then we shall see whether the railroad companies will be found in the way of its advancement. C.

New-York, January, 1845.

GERMAN RAILWAYS.

As much interest is felt in, and little known of, German Railroads in this country, the following article from the *Railway Times* will be perused with interest:

Like most other speculations of the kind, the traffic in German railway shares has had its baneful influence upon certain individuals who are prone to enter into such without adequate means to carry them through, in a manner anticipated; and to such an extent was this traffic carried on a few months ago, that the Prussian Government issued a decree (in order to anticipate the fatal effects of time bargains in shares, and to prevent, as much as possible, irresponsible persons from entering into new schemes, and signing their names to projects with a mere nominal capital, for the purpose of drawing others with capital into them to their advantage) declaring all bargains in foreign shares upon which the *whole* of the capital had not been paid up, and all *time* bargains in them upon the domesticated lines, upon which *only a part* had been paid, null and void.

This decree has had a very salutary effect. It has prevented parties from entering into time-bargains, who, when it came to the push for payment, could not find the needful. It kept the capital at home in a great measure, and prevented adventurers from neighboring states taking advantage of the more credulous, but really wealthy persons from purchasing shares run up by false and spurious bargains, and thus gave to the market a sound and safe basis to operate in.

The decree in question, although it was not published in time to prevent much harm, had the effect of at once placing the value of all shares upon a fair and just footing; a stop was put to a number of schemes in contemplation, by the sudden reaction in the prices of almost all the shares in the Prussian Railways, to the extent of 25 per cent.; and this reaction being felt in all the German lines, has, in consequence, produced a certain feeling of caution among the *bona fide* speculators, generally, whilst it has thrown all the advocates of adventurism in the shade of forgetfulness, to deplore the foresight and wisdom of the Prussian Government in preventing their more respectable subjects from being pilfered, if not ruined altogether.

Much credit is due to his Prussian Majesty, who takes a great interest in any *bona fide* operation tending to benefit his States, and who personally informs himself of all that occurs in railway schemes.

We shall proceed to give a general description of the lines which are nearest the German Ocean.

From Bremen to Hanover a line has been projected, 80 miles long, and will very soon be commenced by the Hanoverian Government. Another, 110 miles long, is in progress between Harburg and Hanover, the former of which is situated on the left bank of the Elbe, on a branch of this river, about 5 English miles from the city of Hamburg, to which it is connected by a line of steamboats. This line will form a junction with lines now in full operation between Hanover, Brunswick, Halberstadt, Magdeburg and Berlin, and Magdeberg and Leipzig, and thence to Dresden.

The Bremen and Hanover line will convey from Hamburg all the goods intended for the interior of Germany, which are now conveyed at a very considerable cost and delay by common road carriages; the extent of this traffic will be very great, and the city of Bremen will at the same time be placed in a more direct communication with the interior. The line between Harburg and Hanover promises also well, and will compete in a certain degree with that from Hamburg to Berlin.

The next projected line, and now in progress, is that between the two last-named cities, passing through the Duchy of Lauenburg, the Grand Duchy of Mecklenburg Schewrin, and thence to Brandenburg and Berlin. It is expected that this line will be finished in a twelvemonth, but a portion at a much shorter period.

The distance is 175 English miles; the cost is estimated at £8,250 per mile; and the shares are 200 thalers, or £30, upon which only 20 per cent. has been called for. It is expected that this line will pay well, the localities through which it passes being extremely favorable, and the management conducted by men of great experience—among them we may mention Mr. Costenable, who had the principal direction of the Magdeburg Railway, which has served as a model to most of the other German lines, both as to the economy as well as the discipline observed upon it. When completed, travellers will be enabled to arrive at Berlin from Hamburg or Altona in nine hours, instead of having, as at present, to travel in the diligence 36 hours, by the common road, or up the Elbe by the steamers to Magdeburg, and thence by railway to the same place, in 42 hours.

From Hamburg to Bergedorf, a distance of 10 miles, there is a line, of which a considerable share has got into the hands of the proprietors of the Hamburg Berlin Company, and is among the most expensive ways, having cost £11,160 to the mile. It runs through a low morass ground; and although the cost has been considerable, it reflects great credit on Mr. Lindley, the principal who projected it, and Mr. Giles, the second Engineer, who carried the plan out,

under great difficulties. This small line may be considered more as a patriotic undertaking of a portion of the principal and leading merchants of the city of Hamburg, than otherwise, and was positively established about three years ago as a sort of forerunner to the Hamburgh and Berlin line; and it has, fortunately for the city of Hamburg, had its effect.

The next coast line is that from Gluckstadt to Elmshorn, which will be ready in the spring of the ensuing year. It has gained very much in importance by the establishment of the European Steam Navigation Company in London, which intends running steamers between Harwich and the first-named place. It will form a junction with the Altona and Kiel Railway, and connect Kenmunster, Kiel, and Altona, and sundry other, by no means unimportant, places together. It must here be observed, that Hamburg and Altona form almost one great commercial city, and the Altona and Kiel Railway forms a direct communication (with steamboat aid) between Harburg and Hanover, Magdeburg, Berlin, Kenmunster, and Rendsburg, Hull, Harwich, London, Amsterdam, Havre, Copenhagen, Fuhnen, Sweden, and Russia! The conveyance of all goods to Denmark and Sweden must naturally come to her share, and the *whole* of the transport of goods between the port of Hamburg and the Baltic must eventually fall to this railway, as it will be too costly to forward them *via* Lubeck, as is now the case.

Numbers of passengers will flock to the baths near Kiel during the spring and summer months, instead of visiting other places where the means of conveyance are so scanty, and at the same time so costly to reach. The yearly outlay for fuel, reparation, salaries, wages, &c. is—

Estimated at	£20,190
Interest on capital 4 per cent. .	15,290
Total	£35,480
Or weekly	£682

During the eight autumn weeks the line has been opened, there have travelled on it 61,626 passengers at an

Income of	£4,262
Goods transported	1,406
Total	£5,668
Averaging weekly	£109

The time for tourists and sea-bathing people was over when it opened; of the lines which will form a junction with it, none are finished; of the turnpike roads which were begun to carry passengers to the stations, none were ready; and of the steamboats running between the cities before mentioned, several had ceased for the season, and only the London and a couple of Hull steamers have continued. During the ensuing year it can therefore reasonably be expected that a very considerable increase will follow.

Formerly, all goods coming from London or Hull, or elsewhere, and destined for Kiel, were generally loaded at Hamburgh, from lighters, forwarded thence to Altona, and then on to Kiel, occupying three to four days in arriving at the journey's end. If landed at Gluckstadt for the future, they will arrive at Kiel in as short a space of time as the steamers would take to get up to Hamburgh, and it is expected that the Danish Government will accede to a reduction of the transit duty through Holstein, which is at present about 4d. per cwt.

There is one feature of great importance as regards the Altona and Kiel Railway, viz., that less fuel will be used on it than perhaps on any other of similar length—and the quantity required can be had at a much cheaper rate, being taken from the ships direct into the Company's repo itory until used.

DESCRIPTION OF A LOCOMOTIVE BUILT ON A NEW SYSTEM, BY M. PALTRINERI.

Having always been pre-occupied with the idea that great dynamic advantages would arise if we could obtain an immediate, continuous, and circular movement from steam power, and that a steam rotatory machine presenting much simplicity, little friction, and preserving and utilizing the greater portion of the active power of the fluid, would be a real benefit to industry, I thought this result might at least in some manner be approached by making use of the power of action and re-action at the same time, and with this view I have invented the mechanism which I had the honor of submitting to the Academy—a mechanism which consists simply of two or several concentric and independent wheels, so as to be able to turn easily in a ratio contrary the one to the other, while they are all placed in the same plane. The steam is introduced on this system by the axis of the interior wheel, and escaping by continuous or intermittent jets through small orifices made in the external circumference in the direction of the tangent, obliges this wheel to take a rotatory movement, according to the reaction, whilst, at the same time, the power of the action, or the impulse of the jets, by meeting with a continual obstacle in the curved shovels with which the felloe of the external wheel is furnished, forces this to take as much motion in a contrary ratio. The two wheels, therefore, act in an opposite way by the two combined powers of action and re-action at the same time, and the steam which has produced this effect escapes by the external circumference of the second wheel through taking the direction of the tangent, on account of the curvature given to the shovels. This steam always preserves on its escape such a power as may be made available by a third wheel, having curved shovels placed in a contrary direction to those of the second, and which would operate also in a contrary ratio, and so afterwards by other wheels until the power be extinct. It appears that, according to this mechanical arrangement, the expansive force of the steam could be used without much loss of the active powers, because there is never any collision between these forces; and the dynamic effects, although they are produced in contrary directions, may be forced to conspire to the same ends as has been done by me by a very simple and easy method in the model which has been presented. In fact, there is no doubt but that the forces, which should naturally destroy each other, go on the contrary, by this system, to unite mutually, by means of cogging, the two wheels in a common pinion, the axis of which represents in this way the principal beam of the machine. My model, which I have applied as a trial to a small locomotive, is only at present the mere development of a principle, and so only presents the first mechanical application, and that very roughly, of my idea. A number of improvements have since presented themselves to my mind, and the proportions and the forms, which for this model have only been arbitrary, should be reduced to more suitable proportions, such as theory and experience will indicate. The plan and operation of this machine are easily understood on inspecting it; but I will give, if necessary, a detailed account of it, and will explain, as far as I possibly can, all the methods which I think capable of improving the invention. In the mean time, I will just say that I have caused small chambers to be constructed in the felloes of the internal wheel, so that the jets of steam may escape from a vessel with their partitions, and of a certain form and size—my intention being to profit by the well-known law of the increase of pressure towards the bottom of a vessel, in proportion to its form and dimension, and so to utilise a much more considerable force of re-action—a result which I have obtained and verified by experiments made in the most exact manner possible. The model which has been submitted to experiment has given the following results: The two wheels measured separately have given a dynamic effect nearly equal, and an experiment has been made, by letting that wheel of the two turn freely which was not submitted to proof; that would show the impulse of the jet is sufficient to repulse the obstacle it meets with in the shovel of the external wheel, without losing any of its power—and, consequently, that in this first effect, the action has still a power equal to the re-action. The two wheels have also been measured separately, by keeping in a fixed position that of the two which was not submitted to proof, the results of which have again been nearly the same as those of the other experiment, which must go to prove that the dynamic effect produced by the one or the other of the two wheels is entirely independent of the effects of the other. When we caused the two wheels to cog in a common pinion (other things being equal), and we were led to expect a dynamic power which would equal at furthest the sum of the effects produced separately by each of the wheels, I had the pleasure to discover that the effect was much more considerable, and that it was sometimes almost double the sum of the two together. The experiments were varied in many ways, but the results have always been the same; and if each gave, for instance, a dynamic effect equal to one, the effect of the two wheels measured on the axis of the pinion was always not only equal to two—a number which would express the sum—but to three, three and a half, and even to four, when all the circumstances were favorable. Whence arises this augmentation? Should we think that it depends on a diminution in the resistance of friction, or a want of the mechanical disposition of the two wheels, which cog in a contrary sense in one pinion, the mathematical axis of which would not change its place? This explanation does not appear satisfactory, because the value of that resistance spared would be much too little in comparison with the augmentation which almost arrives at a double force. Is it that the two wheels cogging in the same pinion, and serving as a fly-wheel one to the other, would so mutually aid each other as to produce such a result? This explanation clearly shows how the two wheels will be obliged to equipoise themselves, and to take an uniform quickness, but we do not even see by that from what source the augmentation of power is derived. Finally, is it this, that there would be, according to the law of Nature, a dynamic advantage from using the powers from the action and re-action at the same time in the way I have discovered? This is a question which the phenomena I have been speaking of appear to resolve by the affirmative—an opinion which other experiments seem to concur in demonstrating as true. I think, moreover, that there is no difficulty in rigorously demonstrating this fact by analysis, because it seems evident that the two points of application of the resistance, by running over each one a certain space in an identical time, should give their dynamic effect with a double speed; and as the forces are proportioned to the quickness, the dynamic effect would, consequently, be double likewise, and the phenomenon of which we are here speaking, gives an example of the fact. Steam being an elastic fluid, and its expansive force being a constant power which reacts, as it were, on itself, without interruption of time, is probably the cause of this result of our experiments, representing a value much greater

than the sum. But as this is a principle of the very highest importance in mechanics, I have, consequently, submitted it to the judgment of the Academy of Sciences, which can easily demonstrate its fallacy, if really it be so—or, on the contrary, assist me in bringing to light its truth as a principle, and the conditions under which it might be rendered available.—*Moniteur Industriel.*

MISCELLANEOUS NOTICES.

There has been a rise in Western Railroad stock within a short time, and sales made at 92, a higher rate than it has ever before attained.—*Boston Post.*

It must be borne in mind that this Road does not extend further East than Worcester, and was built at an expense of $7,500,000. Its length is 156 miles. Much of the country through which it passes, is hilly, and comparatively unproductive. Some of its grades are 80 feet to the mile. The only wonder is, how it could be got over the Green Mountains at all. The success of this Road, (far beyond the anticipations of its projectors, probably,) is a guarantee for the success of all other well-managed Railroads, properly situated. The whole population of Massachusetts west of Worcester is less than 200,000, and that of Columbia and Rensselaer counties, N. Y. about 100,000 more. But these 300,000 inhabitants, fully one-third are too remote from the Road to make any use of it, except for long travel and transportation. One secret of the success of this Road, is its connecting Boston with Albany and the West. Yet it appears from actual returns, that the money received from *way* passengers is nearly double that received from *through* passengers, and the same remark is applicable to freight. The *way* business in a populous country, is, after all, the great reliance, It is more so on many other Roads, than on the Western. If the stock of this Road, at the cost of $7,500,000 for 156 miles, is worth 92 per cent., one would suppose that the Erie Rail-Road, 500 miles long, at about the same cost, (exclusive of $3,000,000 sunk by the State) could not fail to be a profitable concern. Nor could less be inferred in regard to the New York and New Haven Railroad, 70 miles long, at $2,000.000, running through a densely populated country, and connecting 800 miles of Railroad in New England and New York, with the commercial emporium. Both these roads will of course be built. It is impossible that routes so important, can long remain unoccupied. So, we trust, will the New York and Albany Railroad be built. All the great routes will eventually be occupied by Railroads, and they must become more and more profitable as the population and business of the country increase.

Ericsson Propeller.—The case involving the question of the patent right to this invention, now on trial in the U. S. Circuit Court in N. Y., is thus minutely stated in the National Intelligencer's New York letter:

It is a suit brought by a Mr. Emerson against Hogg and Delemater, proprietors of the Phœnix Foundry in this city, for an alleged infringement of patent right in the manufacture and sale of the celebrated Ericsson propeller, which the plaintiff claims was substantially included in a patent taken out by him prior to that taken out by Ericsson. The facts as stated by Mr. Emerson's counsel, Francis B. Cutting, Esq., are substantially these: In the year 1834 letters patent were granted to Emerson for an improved spiral paddle-wheel, which letters patent, together with a drawing and model of his invention, were deposited in the Patent Office, although in his specification no reference appears either to the drawing or model. All these deposited articles were lost in the destruction of the Patent Office by fire. Subsequently to this event, in accordance with the act for the relief of patentees who were sufferers by the fire, Emerson's letters patent were recorded anew, and in February, 1844, an unattested sketch of his invention was deposited in the Patent Office, which was shortly afterwards returned to him for the purpose of being duly attested, and was again deposited, sworn to by Emerson as a correct delineation of his invention. In the month of May following *a second drawing*, attested in like manner, was deposited, between which and the other there is a very remarkable and essential difference; the explanation given of which discrepancy is, that the first was imperfectly and unskilfully executed, having been made by the inventor himself, who is no draughtsman.

The point on which the question seems principally to depend is as to whether the machine claimed by Emerson really was his original invention. In consequence of the destruction of the original drawings, and of none being referred to in the specification, and of the dissimilarity of the two drawings now on file, as well as of the long time that has elapsed since the issuing of the letters patent, this point seems to be involved in some obscurity. The case will probably occupy several days, and the decision will be looked for with a great deal of interest; as Ericsson's propeller has already been applied to some ninety ships, of which two belong to the United States. If Emerson's claim should be sustained in this case, it will of course be valid in others.

Schuylkill Navigation Company.—We learn that a firm in Philadelphia intends building a number of steam tug boats for the purpose of towing the boats on the canal, and thus avoiding horse power. It is alleged that the expenses of transportation will be considerably decreased, and besides the coal can be conveyed to distant ports without transhipment at Philadelphia. Nothing but prompt and energetic action on the part of the Directors of the Navigation Company will enable them to survive the competition waged by the railroad company, which is extending its arms, or feeders, embracing the whole extent of the coal region. They must show to the public that they have the *energy* and the *ability* to sustain the canal, if they wish to gain new friends and retain their old ones. This is absolutely necessary on their part to remove the doubt and uncertainty which now prevails, otherwise all the appendages for shipping by canal will gradually go to ruin in this region.—*Miners' Jour.*

RAILWAY ACCIDENTS.

The "Sentinel" of last Saturday has an article, the spirit of which reflects upon the safety of railway travelling. The evident tendency of such articles being to excite the fears of the travelling public, and to raise up anew the old prejudices against the railway system, we feel called upon to notice his remarks. He commences with, "the philanthropist must see and read with unaffected sorrow and unmitigated disgust, the news columns of the daily journals, in which we find from week to week so many painful accidents," &c. We pass over the dubiosity of these expressions, without waiting to inquire whether the writer means that the daily newspapers record the news, or the weekly ones; perhaps, being himself in the latter class, he thinks, as naturally he should do, that by naming the contents of the first, that of the second is understood. It is of the appearance of such "news" that we complain. The majority of accidents placed to the account of railways does not belong to them. They mostly consist of casualties which have no more to do with railways than an ancient coach and pair with fast travelling. A guard neglects his duty and is maimed in consequence, or a west country goose tries the experiment of laying his neck across the rails as the train is coming up, and meets his death accordingly, as it would be wondrous odd indeed if he did not. "Frightful railway accidents!" appear next morning in the daily journals, and afterwards in the weekly prints, wherein when the "confusion that it is easier to imagine than describe" is got over, the circumstances are detailed, that, in the one case, led to a poor man with a wife and seven children ("lamentable to relate!") losing his leg by the Great Western Railway, and in the other, the awful loss of life suffered by an unfortunate fellow-creature, which the Bristol and Exeter Railway Co. will have to answer for. These accounts generally wind up with the pithy remark, that luckily no passenger met with accident.

Such is the general character of railway accidents recorded in newspapers. There are, perhaps, scarcely ten per ct. of them which are really and truly accidents arising out of the system.

There is something superhuman about railways, and the demon-like, everlastingly hissing engine, that no wonder the public mind is prejudiced against them; no wonder that journals living upon the public appetite, take every opportunity to cram its maw with tasteful food, however unwholesome. The public cravings must be satisfied, and this can better be done by railways than by any other means—at least so it appears by their writings, penny-a-liner's estimate. If a coach upset into a ditch, the lives lost, and the broken limbs, are placed to the account of Providence, and not to the coach. Nay, even if steam, applied in a different shape, be the cause of accident, and a steamer go down with all hands, Providence there, too, alone presides. Such an accident, though attended with greater loss of life than was suffered by the fearful one on the Versailles (French) Railway, is contemplated with a less degree of horror by the public mind!

It is somewhat remarkable, and, we think that every right-minded individual will agree with us, reprehensible, also, that the very party who has assisted in misleading the public by false representations of the safety of railway travelling, should undertake the duties of a censor, and denounce that which has no other foundation than in his own mis-statements. That having given a bad character to an individual—personifying the system of railways—the calumniator proceeds to accuse and condemn on the evidence of his own falsehoods. We trust that the moralisings of the "Sentinel," on the wickedness of railways, will be duly appreciated.

Safety of railways?—Is our cotemporary acquainted with the subject on which he writes, when he calls in question the safety of railway travelling? Is he ignorant that the very mode of transit which he vilifies, *one life only* was lost out of *twenty-four millions* carried!! Surely he must be so, well known as the fact is, or he never would have written what he has.

Since the above was in type, we have heard of one or two accidents having occurred, through the unusually dense fog of Thursday night. This, of course, does not affect the superiority which we claim for Railroads, as the safest means of travelling. For in such seasons how fared the old system? There is no comparison. Indeed, it must be self-evident that the very principle of Railways secures them, more than by any other mode, from accident in a fog. When a stage coach would inevitably run into a ditch, the train is guided safe from danger in virtue of the rails.

EXPLOSION OF THE "RICHMOND" LOCOMOTIVE.

This fatal accident is well known to the entire country. Since its occurrence, Messrs. Norris, Brothers—the well-known engineers of Philadelphia—have requested Dr. Lardner to investigate the matter. This he has done; his opinion has been published in pamphlet form, and has been pretty generally noticed by the press. He assumes four hypotheses, and decides in favor of the last: which was, that the catastrophe was produced by the "combined agency of atmospheric electricity and steam."

The observation and researches of meteorologists have informed us in considerable detail of the various effects, mechanical, chemical and physical, produced on objects by atmospheric electricity. It is, however, a matter of regret, that the result of their labors have been limited to the mere history of these effects. The mode in which they are brought about by electrical agency has not been conclusively established. Among the effects, the most prominent are those produced upon the temperature of bodies; that lightning fuses metals by raising their temperature, is proved by the fact, that metal fused by lightning has fallen in liquid drops upon a wooden floor, and upon the decks of vessels, in which they have burnt holes. These effects have not been confined to masses of metal of limited dimension, nor have they been merely superficial, considerable masses have been on various occasions melted. When the lightning has not produced fusion, the iron has been rendered incandescent and soft, and reduced to the state necessary for welding it; in a word, metals have been raised suddenly by atmospheric electricity to all conditions of temperature, up to and including their points of fusion. Examples of those effects might be multiplied without end. In April, 1807, lightning passed along a large iron chain in Lancashire, in England, and so softened the links that by their own weight they were welded together, and the chain was converted into a rod of iron. The same effect was produced at different times in different places. In March, 1772, a bar of iron, four inches by half an inch thick, connected with a water pipe on the dome of St. Paul's Cathedral, was rendered red hot.

The mechanical effects of lightning consist in piercing solid bodies with holes, splitting them in pieces, bending and twisting them in various capricious forms, and in projecting their fragments, sometimes of enormous weight, to great distances. Buildings stricken by lightning, have produced a shock felt in their neighborhood like that of an earthquake; the heaviest blocks composing their walls, being scattered in all directions, and projected to distances so great as two hundred feet. A church was stricken in Cornwall, from the roof of which a stone weighing nearly 200 pounds was projected to a distance of 60 yards, another fragment being thrown to a distance of 400 yards. In another instance in Scotland, a mass of rock, 28 feet long, 7 feet wide, and 5 feet thick, was raised in the air and projected over an eminence to a distance of fifty yards. Similar examples might easily be multiplied.

Large masses of iron are found to have a strong influence in attracting lightning, and this influence appears to be great in proportion to its weight. Thus lightning passing outside the wall of a building, has been drawn through it by an iron boiler within. Some years ago, a chain pier or bridge in England was destroyed during a violent storm, and although from its nature it was continued into the earth, it was broken to fragments, its heaviest parts were bent, doubled, twisted and knotted in most capricious forms, although no signs of fusion appeared upon it.

I have given these particulars in order to inform those not familiar with meteorological inquiries what are the actual effects which have been produced by the agency of atmospheric electricity; the question now is, whether this agency has been operative in the catastrophe before us.

It appears by the general evidence of the entire population round the vicinity of the catastrophe, as well as by the special evidence of the individuals who have been personally examined, that, at the time of this occurrence, a terrific storm of thunder and lightning raged; two of the men upon the train, who survived, proved that the flashes of lightning were incessant, both before and after the explosion, and that the lightning was of the species called "zig-zag lightning." It is proper here to observe that, of the different species of lightning, this is the kind by which terrestrial objects are generally stricken; this species never, (or if ever, very rarely,) passes between cloud and cloud, but always between a cloud and the earth.

There seems to be then present all the conditions necessary for the production of such a phenomenon; the lightning is in continual play; it is of the kind necessary to produce the effect; 18 tons of iron, in the shape of a boiler and machinery, are present to attract it; there are abundance of disjunctions in this machinery, at least as decided as between the links of a heavy chain, by which conduction may be sufficiently broken to give full effect to the heating power of the electricity; finally this mass is broken to pieces, its parts being scattered about in all directions, broken, bent, and twisted, and projected in considerable masses to distances analogous to those recorded in similar cases. But granting the fact supposed, that lightning struck the boiler, how, it may be asked, can the explosion be explained?—for that an explosion did take place, seems extremely probable, if not morally certain. The character and loudness of the report, and the appearance of the remains of the fire-box, are sufficiently indicative of this. We answer that an explosion in the present case, with the cylinders in full operation, and the two safety valves free, could only be caused by an almost instantaneous evolution of a great volume of highly elastic fluid in the boiler—so great a volume that, compared with it, the steam escaping through the cylinder, and valves would be as nothing. Such an effect would undoubtedly be produced by a sudden access of heat imparted to any part of the boiler in contact with water, or still more effectually if imparted immediately to the water itself. If, then, the electricity thus heated the boiler or any part of it, and that the water, as it might have done, took up the heat from the metal fast enough to prevent the latter from being fused, or rendered incandescent, the entire catastrophe, with all its concomitant circumstances, would be explained. The absence of marks of fusion or incandescence, the terrific violence of the explosion, the projection of a mass of ten tons to a distance of eighty yards, the fracture and scattering about of all the working parts, and the bending and twisting of them in every conceivable variety of form, would all follow as the natural and usual effects of such agency. The freedom observed upon the bodies of the killed, from the effects of the lightning, would be explained by the superior conducting power of the matter of the boiler, which according to its habit the lightning will seize by preference.

I pass over intentionally a supposition which might be made, to the effect that the water in the boiler might have been decomposed, and the catastrophe produced by its explosive constituents. The explanation we have given renders it necessary to resort to this extreme supposition, which certainly could not be supported by any reasoning which would entitle it to any degree of confident acceptation, if indeed it be tenable at all.

Under all the circumstances of the case, I am therefore of the opinion, that the last supposition must be adopted as the only one which is adequate to the full explanation of this catastrophe. I do not forget that it may be urged that the boiler and its appendages were in metallic communication with the earth, and that during heavy rain, the soil itself was in a favorable condition for the escape of the electricity; but I know that in the structure of the boiler and its appendages, there were interruptions of the metallic continuity greater both in number and degree, than between the links of a chain, and in other cases, in which it is proved that masses of iron have been rendered incandescent by lightning.

In fine, if my evidence were required on this point, in a case where the rights or liabilities of individuals rendered a positive decision of the question indispensable, I should not hesitate a moment to affirm that the decision must be made on the last of the above suppositions.

The following facts and views will aid somewhat towards forming an opinion.

The load at the time was the *lightest* the Richmond had yet hauled, consequently there was no reason to suppose any very high steam. The soot being found still adhering to the crown of the fire-box, shows that it did not explode from want of water. The engine-driver was a very careful man. The explosion took place whilst the engine was *moving*—all other explosions having occurred when at rest, or just at st arting.

A flash of sharp lightning was seen to strike the engine immediately before the explosion, and, by the doctrine of chances, there is little probability that an ordinary explosion took place at that moment. Lastly, the two rails on the *other* track were cut across as if by a cold chisel—an occurrence unaccountable in the case of the boiler bursting from too high steam.

Diversity of opinion is to be expected when diversity of interests prevails; but we must decidedly observe that the reputation of such engineers as the Messrs. Norris, or the Messrs. Baldwin & Whitney, is no more to be affected by a single accident of this kind, than is the reputation of the Messrs. Stephensons by the one or two similar accidents which have occurred on their engines in England.

We had occasion some time since to announce the opening of the second track of the Reading Railroad, and in doing so, gave due credit to the spirit and enterprise which led to the completion of this great work. We refer with equal pleasure to a new developement of the means of transportation, which it is believed will add greatly to the value of the mineral treasure of the State, promote in an equal degree the prosperity of this city, and help to bring down the cost of one of the great necessaries of life to a minimum price throughout the country.

The use of steam as a motive power on canals and slack-water navigation, is producing quite a sensation in the public mind. This is owing to the new modes of application and adaptation of this wonder-working agent. It is believed by scientific and practical men, that all the objections which have heretofore existed to its use upon canals may be overcome, and that an entire revolution is about to take place in the whole system of canal navigation. Many of our citizens had an opportunity recently, of witnessing a signal instance of success, in a canal boat propelled by steam, which, after having plied between New York and St. Johns, in Canada, through Champlain canal, the Lake Champlain and its outlet, throughout the season there, at its close came through the Delaware and Raritan canal to this city, on its way by the route of the Delaware and Chesapeake canal to the Dismal Swamp canal, to find employment for the winter, as it had done in a former season. This boat was moved by propellers in the *bow*, by a very simple application of the power; and the result, without going into remote details, may be stated to have been in all respects, as to the rate of speed, absence of injury to canal banks, cost of construction, expense of working, capacity of towing other boats, and equal adaptation to ply in canals, rivers, lakes or bays, entirely successful.

In a word, it is believed to have been already demonstrated that the expense of transporting coal from the Schuylkill region to New York may be diminished one half; that the coal may be taken to any point where inland navigation reaches, without trans shipments, detention or waste; the trips being performed with regularity and certainty, and within a reasonnble time.

This, certainly, is a very important matter to the city of Philadelphia, as a corporation alone, to say nothing of its probable effects upon the general prosperity. The city holds 2440 shares in the stock of the Schuylkill Navigation Company, which having been originally subscribed in a convertible loan at par, cost $122,000. The city also holds $266,000 of the Loan of the Schuylkill Navigation—making the aggregate of its investments in this work $388.000. This, we are informed, is far beyond the interest held by any individual. The stock and loan are, however, very generally, held by our own citizens—friends and neighbors whom we meet every day in the common walks of life, and with whom we have common sympathies.

It has been suggested that the present navigation is susceptible of very great improvement—that its capacity may be enlarged, its facilities increased, and the whole work adapted to the improved use of steam as a motive power, at a limited expense, within a reasonable time, and without interfering greatly with the trade while the work is going on. The importance of this suggestion presses itself upon all now that the success of steam propellers upon canals is demonstrable. The trade of the region, this season, has exceeded 800,000 tons, of which the Navigation has done about one half.

It is confidently asserted every day in our streets that this portion of the trade left to the Navigation, is in danger of being lost. Some, indeed, actually believe that it will be lost, unless strenuous efforts are made to retain it. The entire cost of the work, including capital, loans, and earnings applied to construction, has been near FOUR MILLIONS. We learn that the annual report next week will contain an exposé of the affairs of the company, and show that the Navigation is indeed susceptible of improvement and enlargement, and proper adaptation to the use of steam, with boats of one or two hundred tons burthen. This, we venture to repeat, is a great subject. We say again and again, that this is more particularly interesting to us, because the city of Philadelphia has so large an investment in the work as a corporation. The coal trade of the Schuylkill, in another year, will reach a million of tons, and must continue to increase with the increasing facilities of transportation. Let there be an honorable competition for the trade; the work which can furnish the greatest facilities and sustain itself, must, eventually, take the greatest share. Upon this subject we express no opinion—but since our friends and neighbors have four millions at stake, including nearly half a million held by the city corporation; and since this large sum was liberally supplied for the first developement of the immense treasures of the coal region, we cannot but hope, still, to see the Schuylkill Navigation sustained.

It is, perhaps, due to ourselves here to add, that some weeks ago, a correspondent complained, as we think, unjustly, that the Navigation Company had not sufficiently interested themselves, some years back, in certain contemplated improvements on the west bank of the Schuylkill, opposite to the city. The editor of this paper was at that time Chairman of a Committee of the City Councils, to whom this subject was referred, and reported against it. The only member of the Board of Directors of the Schuylkill Navigation Company, in Council at the time, signed a minority report *in its favor*. —*U. S. Gaz.*

THE NEWCASTLE MANUFACturing Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires; Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.

ANDREW C. GRAY,
President of the Newcastle Manuf. Co.

RAILWAY IRON, LOCOMOTIVES, Etc. The subscribers offer the following articles for sale:

Railway Iron, flat bars, with countersunk holes and mitred joints.						lbs. per ft.
350 tons	2	by	15	ft. in length	weighing	4·68
280 "	2	"	½	"	"	3·50
70 "	1½	"	½	"	"	2½
80 "	1¼	"	¼	"	"	1·26
90 "	1	"	¼	"	"	⅞

with spikes and splicing plates adapted thereto. To be sold free of duty to State governments, or incorporated companies.

Orders for Pennsylvania Boiler Iron executed.

Railroad Car and Locomotive Engine tires, wrought and turned or unturned, ready to be fitted on the wheels, viz: 30, 33, 36, 42, 44, 54 and 60 inches diameter.

E. V. Patent chain cable bolts for railway car axles, in lengths of 12 feet 6 inches, to 13 feet 2½, 2⅝, 3, 3⅛, 3¼, 3½, and 3¾ inches diameter.

Chains for inclined planes, short and stay links, manufactured from the E. V. cable bolts, and proved at the greatest strain.

India rubber rope for Inclined planes, made from New Zealand wax.

Also—Patent hemp cordage for inclined planes and canal towing lines.

Patent felt for placing between the iron chair and stone block of edge railways.

Every description of railway iron, as well as locomotive engines, imported at the shortest notice, by the agency of one of our partners, who resides in England for this purpose.

A highly respectable American Engineer resides in England for the purpose of inspecting all Locomotives, Machinery, Railway Iron, etc., ordered through us.

A. & G. RALSTON & CO.
No. 4 South Front st. Philadelphia, Pa.

RAILROAD IRON & FIXTURES. The subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS, & CO,
21 Broad st., N. Y.

BOSTON AND MAINE RAILROAD.—UPPER ROUTE.

BOSTON TO PORTLAND—via Medford, Woburn, Wilmington, Andover, Bradford, Haverhill, Plaistow, Kingston, Exeter, Newmarket, Durham, Madbury, Dover, Somersworth, South and North Berwick, Wells, Kennebunk and Saco.

WINTER ARRANGEMENT.—1844-5.

On and after Monday, Oct. 21, 1844, the Passenger Trains will run daily, Sundays excepted, as follows, viz:—

Leave Boston for Portland at 7½ A. M. and 2½ P. M.
Leave Boston for Somersworth at 7½ A. M., 2½, and 3½ P. M.
Leave Portland for Boston at 7½ A. M. and 3 P. M.
Leave Somersworth for Boston at 4½ A. M., 9½ A. M., 4½ P. M.

Passengers are not allowed to carry baggage, beyond $50 in value, unless notice is given, and an extra amount paid, at the rate of a price of a ticket, for every $500 additional value.

jal CHAS. MINOT, Superintendent.

BOSTON AND LOWELL RAILROAD.

ON and after Friday, Nov. 1st, 1844, the Passenger Trains will run as follows:

Leave Boston at 7 and 11 A. M., 2 and 5 P. M.
Leave Lowell at 7½ and 11 A. M., 2, 4½, and 5½ P. M.

Fare 75 cents.

The Coaches of Messrs. D. G. Cummings and B. P. Cheney, Nos. 9 and 11 Elm street, will convey passengers between the Depôt, in Lowell street, and places within a moderate distance, for 12½ cents.

jal CHAS. S. STORROW, Agent B. & L. R. R. Co.

CONCORD RAILROAD

MERCHANDISE TRAINS will run daily as follows:

Leave Boston at 3½ P. M., and arrive at Concord the same evening.

Leave Concord at 3½ P. M., and arrive at Boston at 7½ the next morning.

Freight should be delivered at Concord and Boston an hour before leaving, to ensure a delivery by the first succeeding Train.

All passengers' baggage should be marked, and when valued at more than $50, notice should be given and extra charges paid, or no claim for damage or loss beyond such sum will be allowed.

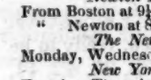
jal N. G. UPHAM, Sup't.

NASHUA AND LOWELL RAILROAD.

PASSENGER TRAINS will run as follows:

Leave Boston at 7 A. M.; 11 A. M.; and 5 P. M.
Leave Nashua at 6½ A. M.; 1½ P. M.; and 5 P. M. jal

BOSTON AND WORCESTER RAILROAD.



CHANGE OF HOURS.—*WINTER ARRANGEMENT.*—Commencing December 11, 1844.

Accommodation Trains, daily, except Sundays.

From Boston at 7 A. M., 9 A. M., and 2½ P. M.
From Worcester at 7 A. M., 10 A. M., and 6 P. M.

Newton Trains, daily except Sundays.

From Boston at 9½ A. M., 3 P. M., and 5 P. M.
" Newton at 8 A. M., 10 A. M., and 4 P. M.

The New York Train for Norwich.

Monday, Wednesday and Friday, from Boston, at 4 P. M.

New York, via Long Island Railroad.

Tuesday, Thursday and Saturday, from Boston, at 7 A. M.

New York, via New Haven.

From Boston at 9 A. M. and 2½ P. M.
Sunday Mail from Boston at 2 P. M.—from Worcester at 7 A. M.

☞ All baggage at the risk of its owner.

Fares are less when paid at the Ticket Offices than in the Cars. jal WM. PARKER, Sup't.

WESTERN RAILROAD.

WINTER ARRANGEMENT.

ON and after the 11th December, 1844, the Passenger Trains will leave as follows, Sundays excepted:

Boston at 9 A. M. and 2½ P. M. for Albany.
Albany 8½ A. M. and 1½ P. M. for Boston.
Springfield 7 A. M. and 3 P. M. for Albany and Boston.
Boston 2½ P. M. for New York via Springfield and New Haven.

For Albany and Buffalo.

Leave Boston at 9 A. M., reach Albany at 8½ P. M.—Leave Boston at 2½ P. M., arrive at Springfield at 7½ P. M.—lodge—leave next morning at 7 o'clock, arrive at Albany at 12½ P. M. Passengers leave Albany for Buffalo at 8 A. M.

NEW ROUTE FOR NEW YORK.

VIA HARTFORD AND NEW HAVEN.

☞ FARE THROUGH FIVE DOLLARS. ☜

Leave Boston at 2½ P. M., and reach Springfield at 7½ P. M.—thence direct by Railroad to Hartford and New Haven, and thence by Steamboat to New York, arriving at 5 A. M. Returning—leave New York at 6½ A. M. and arrive at Springfield at 3 P. M., and thence to Boston, arriving at 8 P. M. Berths on board the Steamboat may be secured in Boston at the Ticket Office.

For Northampton, Greenfield, Haverhill, &c.

Stages leave Springfield for the above places, upon the arrival of the evening trains. Stages also run from West Brookfield to Ware, Enfield, New Braintree and Hardwick—from Palmer to Three Rivers, Belchertown, Amherst, Ware and Monson—from Wilbraham to South Hadley and Northampton, and from Pittsfield to Adams and Williamstown.

The Trains of the Hudson Railroad connect at Chatham—those of the Housatonic Railroad at State line.

Merchandise Trains run daily, Sundays excepted, to Albany, Hudson, Bridgeport, Hartford, New Haven and New York.

For further information, apply to CHARLES A. READ, Agent, 27 State str. et, Boston.

jal JAMES BARNES, Superintendent and Engineer.

FITCHBURG RAILROAD.

OPEN TO ACTON.

Passenger Trains will run as follows:

Leave Charlestown at 8 A. M. and 1 and 4½ P. M. Leave West Acton at 7 36 and 10 51 A. M., and 5 6 P. M.

Stages, on the arrival of the first Train of Cars at Acton, leave daily (Sundays excepted) for Littleton, Groton, Townsend, Lunenburg, Fitchburg, Ashburnham, Winchedon, Westminster, South Gardner, Templeton, Phillipston, Athol, Mass.; Fitzwilliam, Troy, Swansey, Keene, Walpole, Charlestown, N. H.; Chester, Windsor, Woodstock, Rutland, Middlebury, Royalton, Montpelier, and Burlington, Vt.

For further information, apply to THOMAS A. STAPLES, No. 36 Hanover st., or L. BIGELOW, No. 11 Elm st., Boston. Passengers leaving their names at the above offices, will be supplied with Railroad and Stage tickets, and conveyed to the Fitchburg Railroad Depôt, *free of charge.*

Coaches will be at the Depôt in Charlestown, on the arrival of the Cars, to convey passengers to any part of the city.

jal S. M. FELTON, Engineer.

BOSTON AND PROVIDENCE RAILROAD.

PASSENGER NOTICE.—*Winter Arrangement.*—To commence Monday, November 4.

On and after Monday, Nov. 4, the Passenger Trains will run as follows:

For New York—Night Line, via Sound Steamers—Leave Boston at 4 P. M. on Tuesday, Thursday and Saturday.

For New York—Morning Line, via Long Island Railroad—Leave Boston at 8 A. M. on Monday, Wednesday and Friday.

Boston, Providence, Taunton, New Bedford and Way Trains.

Leave Boston at 8 A. M., and 3½ P. M.; and Providence at 8 A. M. and 3½ P. M.
" Taunton at 8½ A. M. and 3½ P. M.
" New Bedford, at 7½ A. M. and 2½ P. M.

Dedham Trains.

Leave Boston at 9 A. M.—3 P. M., 5½ P. M.
Dedham at 7 50 A. M., 10½ A. M., 4½ P. M.
All baggage is at the risk of the owners thereof.

WM. RAYMOND LEE, Sup't

LONG ISLAND RAILROAD COMPANY.

Trains run as follows, commencing November 1st, 1844:

Leave Brooklyn at 8, a. m. (7½ New York side)—Boston Train—for Greenport, daily, Sundays excepted, stopping at Farmingdale and St. George's Manor.

Leave Brooklyn at 9½, a. m. for Hicksville and intermediate places, daily; and on Tuesdays, Thursdays and Saturdays, through to Greenport and intermediate places.

Leave Brooklyn at 4, p. m. for Hicksville and intermediate places, daily, Sundays excepted; and on Saturdays to Suffolk Station.

Leave Greenport for Brooklyn, Boston Train, at 1, p. m. or on the arrival of the steamers, daily, Sundays excepted, stopping at St. George's Manor and Farmingdale.

Leave Greenport at 9½, a. m. Accommodation Train, for Brooklyn and intermediate places, on Mondays, Wednesdays, and Fridays.

Leave Hicksville for Brooklyn and intermediate places, daily, Sundays excepted, at 7, a. m. and 1½, p. m.

ON SUNDAYS.

Leave Brooklyn for Hicksville and intermediate places, at 9½, a. m.
Leave Brooklyn at 4½, p. m. for Jamaica.
Leave Hicksville at 2½, p. m. for Brooklyn.
Leave Jamaica at 8, a. m. for Brooklyn.
Leave Jamaica at 3½, p. m. for Brooklyn. jal

FOR ALBANY AND BOSTON,

Via New Haven, Hartford, Springfield, and Western Railroads.

Composed of the following steamers. NEW CHAMPION, Capt. Stone; GLOBE, Capt. R. Peck; NEW YORK, Caps. ——. One of which will leave New York, from Peck Slip, daily, (Sundays excepted,) at 6½ o'clock.

Fare to Boston..... ....$5.

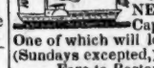
* Railroad Cars leave immediately on the arrival of the above steamers at New Haven, and taking passengers through to Albany and Boston the same afternoon.

The steamboat BELLE, Capt. Roath, will leave New York every Monday, Wednesday, and Saturday afternoon at 4 o'clock.

N. B.—Freight for Albany, Springfield, and intermediate places taken by this line at low rates.

For further information inquire of D. B. Allen, 34 Broadway, up stairs; or G. W. Corlies, 283 Pearl street.

NEW YORK AND ERIE RAILROAD.



On and after Monday, December 2d, until further notice, the steamboat —— will leave the foot of Duane street every morning, Sundays excepted, at 8 o'clock, for passengers, and every afternoon at 3 o'clock, for freight and passengers.

Returning, the cars will leave Middletown at 6½, a. m. and 3½, p. m.

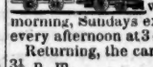
Stages for the West, leave Middletown upon the arrival of the morning cars, from the city.

Freight received from 9 o'clock, a. m. to 2½ o'clock, p. m.

For further particulars inquire of the Captain, on board, or of J. Van Rensselaer, Agent, cor. Duane and West streets.

jal H. C. SEYMOUR, Superintendent.

PHILADELPHIA AND READING RAILROAD.



WINTER ARRANGEMENTS on and after December 1, 1844.—No Passenger Trains will run on Sundays.

Hours of Starting.

From Philadelphia at 9 A. M., daily.
From Pottsville at 9 A. M. daily, except Sundays.

FARES.

	1st Class Cars.	2d Class Cars.
Between Philad. and Pottsville,	$3 50	$3 00
" " Reading,	2 25	1 90

All passengers are requested to procure their tickets before the train starts. jal

NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.

New Arrangement.
Commencing Nov. 11th, 1844.

NEW YORK AND NEWARK.

Fare Reduced to Twenty-Five Cents.

From the foot of Courtlandt street—Daily, Sundays excepted.

Leave New York, at 9, 11, and 12 o'clock, a. m. and 2, 4, 4½, 6, and 7½ o'clock, p. m.
Leave Newark at 7½, 8½, 9, and 11 o'clock, a. m. and 1½, 4, 5½, 7, and 9½ o'clock, p. m.

ON SUNDAYS, from the foot of Courtlandt street:

Leave New York at 9 o'clock, a. m. and 4½ p. m.
Leave Newark, at 11½, a. m. and 9½, p. m.

The Cars of the Morris and Essex Railroad line for Orange, Millville, Summit, Chatham, Madison, and Morristown, run through from Jersey City without change, and connect with 9, a. m. and 3, p. m. trains from New York.

New York and Elizabethtown.

Leave New York at 9 and 11, a. m. and 2, 3, 4½ and 6, p. m.
Leave Elizabethtown at 7, 7½, 8½, 10½ and 12, a. m. and 3½ and 5, p. m.

The trains for Westfield, Plainfield, Boundbrook, Somerville, &c., connect with the 9, a. m. and 4½, p. m. trains from New York, daily, Sundays excepted.

Fare between New York and Elizabethtown, 31¼ cents; do. New York and Somerville, 75 cents.

New York and Rahway.

Leave New York at 9 and 11, a. m. and 3, 4½ and 6, p. m.
Leave Rahway at 6½, 7, 8½ and 12, a. m. and 4½ and 9½, p. m.

New York and New Brunswick.

From the foot of Courtlandt street, New York, daily.
Leave New York at 9, a. m. and 3 and 4½, p. m.
Leave New Brunswick at 6, 7½ and 11½, a. m. and 8½, p. m.

ON SUNDAYS.

Leave New York at 9, a. m. and 4½, p. m.
Leave New Brunswick at 11½, a. m. and 8½, p. m.

Fare, except in the Philadelphia trains, between New York and New Brunswick, 50 cents; do. Rahway, 31½ cents.

Newark, Elizabethtown, Rahway, and New Brunswick passengers who procure their tickets at the Ticket Office receive a ferry ticket gratis. Tickets are received by conductors only on the day when purchased.

The Commutation fare between New York and New Brunswick, and intermediate places, (including the Ferry,) has been reduced to $65 per annum. jal

PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD—MORNING LINE.

The Train carrying the United States Mail leaves Pratt street Depôt daily (except Sundays,) at 9 o'clock, A. M. Passengers arrive in Philadelphia at about 3½ o'clock, and in full time for the evening lines for New York.

Evening Mail Line to Philadelphia per Railroad

The Evening Mail Train for Philadelphia, leaves the Pratt street Depôt, daily at 8 o'clock P. M. through in seven hours.

The return Trains leave Philadelphia respectively at 8 A. M. and 4 o'clock P. M., and reach Baltimore at 2½ and 11 o'clock, P. M.

Freight to or from Philadelphia, taken daily (except Sundays) from President street Depôt, at 50 cents per 100 lbs.

jal A. CRAWFORD, Agent.

BALTIMORE AND OHIO RAILROAD.

Hours of departure of the Passenger Trains on the "Main Stem" and "Washington Branch" of the Baltimore and Ohio Railroad, 30 March, 1844:

"Main Stem," Westwardly.

From Cumberland, Hancock, Martinsburg, Harper's Ferry, Winchester, Frederick, Ellicott's Mills, and intermediate depots by the regular train, daily, at 7½ o'clock, a. m.

For Frederick and intermediate stations, by extra train, daily, except Sunday, at 4, p. m.

Eastwardly.

From Cumberland, daily, regular train, at 8, a. m.
" Hancock, do. do. 10½, a. m.
" Martinsburg, do. do. 11½, a. m.
" Harper's Ferry, do. do. 12½, p. m.
" Frederick, daily, except Sunday extra train, 8, a. m.
" do. by regular train, 2. p. m.
" Ellicott's Mills, daily, by several trains, at 7½, a. m. 12, m. and 4½, p. m.

Fare in either direction between Baltimore and Cumberland $7, and for intermediate distances at the uniform rate of 4 cents per mile.

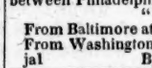
Through tickets are issued between Baltimore and Wheeling, respectively, $11; between Baltimore and Pittsburg, $10; between Philadelphia and Wheeling, $13.

"Washington Branch."

From Baltimore at 9, a. m. 5, p. m. and 11½, p. m.
From Washington at 6, a. m. and 5½, p. m.

jal By order, D. J. FOLEY. Agent.

WASHINGTON BRANCH RAILROAD.



In consequence of the adoption of a new schedule by the Post Office Department, the following changes in the departure of the Trains on this road will go into effect this day, viz:

The Train that has hitherto left Baltimore at 2 o'clock, A. M. will now leave on the arrival of the Cars from the East, at or about 11½ P. M. and the departure of the evening train from Washington for this city, will be at 5½ instead of 4 o'clock, as at present. By order, D. J. FOLEY, Agent. jal

RICHMOND AND PETERSBURG RAILROAD.

Winter Arrangement.—Change of Hours.

On and after Wednesday, the 13th day of Nov. 1844:

Mail Train

Leaves Richmond, daily, at 1½ o'clock, p. m.
Leaves Petersburg, daily, at 5½, a. m.

Accommodation Train

Leaves Richmond, daily, Sundays excepted, at 10½, a. m.
Leaves Petersburg, daily, Sundays excepted, at 8, a. m.

THEODORE S. GARNETT, Agent.

N. B. The hours are given in *Richmond* time, which is fifteen minutes in advance of Petersburg time. jal